C. Briggs

THE GENESEE FARMER.

VOL. XV., SECOND SERIES. ROCHESTER, N. Y., AUGUST, 1854. No. 8.

CALENDAR HINTS FOR AUGUST.

THE quantity of water that will evaporate from the surface of the ground during this month, under favorable circumstances, will be two or three times greater than what will fall in rains. Hence, if the earth does not become quite dry in August, the natural heat which it has imbibed, and the probable lack of rains in September, will be likely to cause vegetation to suffer from drouth in autumn. Evaporation from the leaves of all living plants, and from their stems and the ground, draws pretty severely on the scanty supply of moisture that usually exists in this month. If it were practicable for farmers to irrigate their recently-mown meadows and their pastures, it would add immensely to their fall feed, aid in the fattening of all stock, and greatly increase the products of the dairy and the profits of the farm.

Late-sown wheat has turned out badly in Western New York, having been much damaged by the wheat fly called "weevil," and suffered unusual injury by the freezing and thawing that took place in the month of March. This experience will prompt many to sow whatever wheat they intend to put in, at an earlier period than they have heretofore practiced. To the wheat-grower, August is a stirring month to prepare his fields for seeding. Any neglect in tillage will tell against the crop when it comes to be harvested. All grass, weeds, thistles, briars and bushes should be extirpated and killed, if it be possible; for the growth of these in a wheat field is a serious detriment to the grain.

Hogs intended for meat this fall ought to have a good chance to take on flesh in August. If properly kept they will gain rapidly, and yield the maximum return for the food consumed. Nature disposes all

quadrupeds, and doubtless birds also, to take on fat in summer and autumn, as a kind of protection against the cold of winter, and a partial supply of alimentary and heat-giving elements stored up in the system to be consumed at the season of its greatest need. Hence, every farmer should look closely to his cows, oxen, steers, calves and heifers; to his sheep, horses, store hogs, poultry and honey bees; and see that all are doing well.

In many parts of our extended country, it is a common error to allow crops of all kinds to remain too long in the field after they are harvested. This remark applies to wheat, rye, oats, hay, seed clover, potatoes and corn. Every crop should be housed or otherwise secured in its season, if possible; but occasionally sickness, or a want of help, prevents one's garnering his crops at the proper time. Few are aware how much valuable produce, of one kind and another, is destroyed and lost by sheer neglect in the field, after it has been grown and cut at no small expense. This is the extreme of folly.

We present this month an illustration of "Virgio," the zodical sign of August. This month received its present name in honor of Octavius Augustus. In the old Roman calendar it was called "Sextilis," the sixth month from March.

THE STUDY OF SOILS.

The *Country Gentleman* of July 6th contains an elaborate article "On the Practical Value of the Analysis of Soils," written by Mr. S. W. Johnson, who is understood to be engaged in studying chemistry with Baron Leibig, at Munich, at which place his communication is dated. The purport of this paper is to discredit the practical value of soil analyses, and suggest nothing as a scientific substitute. This course is to be deprecated; for it discourages the critical investigation of the sources of fertility, and the causes of infertility, in soils. It disparages the labors of such chemists as Sir Humphrey Davy, Chaptal, Sprengel, Leibig, Mulder, Johnston, Way, Thompson, and many others, who have devoted much time and research to learn the chemical properties of cultivated earth. As the *Country Gentleman* strongly commends the article of Mr. J., we will copy two paragraphs from it, and invite attention to their contradiction of each other:

"Magnus calculates that the average harvest of rape seed and straw, from a 'morgen,' contains 13 lbs. of phosphoric acid. The soil of a morgen taken to the depth of 9 inches, he calculates would weigh 1,944,000 lbs. 13 lbs. is then 0.00066 per cent. the weight of the soil. Chemical analysis is incapable of deciding as to 0.01 in the case of soils, scarcely as to 0.1 per cent. How many crops, and how many pounds of phosphoric acid may be removed from the soil, and chemical analysis never be able to tell the difference?

"Magnus further shows that from a soil in which the closely-agreeing results of three analysts gave 0.0073 per cent. of phosphoric acid, three crops of rape were gathered, in '46, '47 and '48, the last of which was greater than the first (no manure was used), and the three crops, not including chaff, drew from the soil a greater per centage of phosphoric acid, viz., .018 per cent. of the soil, than the soil contained according to the three analyses, viz., .0073 per cent. Magnus remarks: 'It follows from this, that plants do not need to find in the soil any much greater quantities of a substance than is required to their development.'"

It will be seen that Mr. Johnson asserts unqualifiedly in the first paragraph, that "chemical analysis is incapable of deciding as to 0.01 in the case of soils, scarcely as to 0.1 per cent." As a knowledge of decimals is not common among all farmers, and especially with such as went to school before they were studied as much as they now are, we will state the above in words: "Chemical analysis is incapable of deciding as to one part in ten thousand in the case of soils, and scarcely one part in a thousand." In the very next paragraph he informs his readers, on the authority of Magnus, that "*three analysts gave closely-agreeing results*," and only seventy-three parts of phosphoric acid (0.0073 per cent.) in a million parts of soil! It will be seen that these three analysts do what, according to Mr. J., is an impossible thing. They determine the amount of phosphoric acid (the most difficult part of soil analysis) down to so small a fraction as seven and three-tenths parts in one hundred thousand, or seventy-three in a million. Mr. Johnson quotes Prof. Magnus (high authority) in another place, where he gives only nine parts of phosphoric acid in one hundred thousand, or less than one part in ten thousand. Mr. J. is evidently an inexperienced writer for the press, or he would not thus present his readers with overwhelming evidence to convict him of gross carelessness, or gross ignorance, as to what "chemical analysis is capable," or "*incapable* of deciding," in reference to soils.

As a practical farmer, we readily admit that the most refined and improved processes of chemical analysis do not give all the information which it is very desirable to possess; nor does medical science give us all the knowledge of diseases which both physicians and the sick may reasonably wish that mankind possessed. No profession can be bettered by underrating its importance; nor improved without patient and laborious cultivation. Mr. Johnson alludes to Mr. Mapes in no complimentary terms. Probably Mr. J. does not esteem the shallow quackery of Mr. M. more lightly than we do; but our Munich student should not permit himself to run into the opposite extreme. It is too early to pronounce *ex-cathedra* what chemistry, in conjunction with practical agriculture, can do to develop both the real defects, and real resources, of common soils. For the last twenty years we have contended that science and practice—the wise culture of the mind and the labor of the hands—should go together. Hence it was that we spent three winters in Albany to persuade the Legislature to establish a State Agricultural College. In a Memorial to Congress in favor of a National Agricultural School, written by the editor of this paper, and published at length in the April number of the *Southern Cultivator*, in 1852, may be found the following remarks:

"Your memorialist and others have labored thirty years to persuade the Legislature of New York to

found one institution in that large, populous and wealthy State, designed to unite science with practice in farming operations, and thus lay the foundation for a higher standard of professional knowledge among farmers. All these efforts have proved unavailing to overcome the indifference of the many, and the determined hostility of the few. The want of men qualified to serve as professors of agricultural engineering, of the science of breeding and improving live stock, of agricultural physiology, comparative anatomy and veterinary surgery, of agricultural meteorology, entomology, chemistry, geology, zoology, and other departments of science intimately related to the liberal profession of agriculture, has long been the most serious impediment in the way of founding an agricultural college in this country. To educate six or eight professors in Europe, who have to learn one or more foreign languages at the outset, involves an amount of labor that but few rich persons will perform, and a degree of expense that but few poor men can meet. This is the true reason why, with all our taste for reading, and general respect for learning and science, there is not one agricultural text book in any branch of rural affairs in the United States, worthy of the name. We have yet to apply the inductive system of philosophy to agricultural phenomena. We complacently assume to know without books, without schools, without experimental farms or farming, without study or research of any kind, *a little more* than we should if we availed ourselves of all these advantages, in addition to those we already possess. First and last, there has been sent some millions of dollars to England, France, Spain and Germany, to purchase improved stock; acting, apparently, on the principle that one has only to buy a fine watch to become at once a most skillful watchmaker."

If young men, like Mr. JOHNSON, educated in part abroad, throw cold water on the critical study of soils, we see but little use in trying to build up an agricultural literature in this country that shall be an honor to a nation of free and independent farmers. Some of the most valuable elements of fertility in the surface of the ground may be estimated, where they form no larger per centage than that of ammonia in the atmosphere; which, if our memory serves us rightly, FRESENIUS and WILL ascertained to be only one part in three millions. At another time we will resume the consideration of this subject; for it is one that deserves the serious attention of every true friend of agriculture as a profession. It is now nearly thirty-three years since Judge BUEL introduced the first bill to establish an Agricultural School in this State; and now such an institution seems less likely to be founded in this rich and populous Commonwealth than it did at that early period.

HYDRAULIC RAM.—The *Banner of Industry* says that JOSEPH D. WEST, of the city of New York, has made an improvement in Hydraulic Rams, the nature of which consists in a peculiar arrangement of valves, whereby the ram is made double-acting, and the use of weighted or spring valves dispensed with—important considerations, truly. Measures have been taken to secure a patent.

MIXTURE AND SOWING OF GRASS SEEDS.

FARMERS in this country are much less in the practice of mixing several kinds of grass seeds before sowing them, than in Great Britain; nor do the advantages of a considerable variety of herbage for farm stock appear to be generally understood. Pastures and meadows have not received that critical study in the United States which their great importance demands. Land is often poorly prepared for seeding, and still more frequently receives too little seed of any kind. A general and thorough reform in these regards will do more for American agriculture than any other in the whole range of husbandry; and now that stock-growing is profitable, we trust that the improvement of grass lands will be taken up in earnest by County and State Agricultural Societies, and pursued until something more than two blades of grass shall be made to grow where one grew before.

That our readers may see how this matter is viewed and practiced in England, where grazing is carried to great perfection, we copy the following remarks from a recently published standard work on the agriculture of the United Kingdom:

"Rich old pasture land returned to grass, after having been broken up and subjected to a course of arational cropping, may be sown, at the rate of five bushels of seeds per acre, with a mixture of meadow fescue, meadow foxtail, round cock's-foot, tall oat-like soft grass, rye grass, meadow cat's-tail, crested dog's-tail, yellow oat, meadow oat, hard fescue, smooth-stalked meadow grass, fertile meadow grass, nerved meadow grass, marsh bent, florin, creeping vetch, cow clover, and white clover. This mixture is an artificial improvement on that which naturally grows on the best pastures, and simply rejects the worst plants of the natural mixture and adds one or two prime ones; and it was experimentally tried by the late Mr. SINCLAIR, with the express view of ascertaining the difference between its produce and that of the natural pasture. The piece of ground broken up for it was cropped during five years with successively oats, potatoes, wheat, carrots, and wheat; it was found, at the end of five years, to have suffered a very considerable diminution of its organic constituents; it was then, in preparation for the grass seeds, manured and pulverized; and between the time of their being sown and the commencement of frost, it received a top dressing of a dry compost of lime, vegetable mold, and rotten farm-yard manure. The produce of the first summer was cut and weighed on the 1st of July, and was found to be one-eighth greater than that of the original or natural grasses on the same piece of ground; the produce of the first aftermath was found to be one-fifth less than that of the original grasses; and the produce of the whole of the second year was found to be one-eighth greater than an average year's whole produce of the original grasses.

"Sandy upland soils, which are broken up for the double purpose of exterminating some of their weeds and least valuable herbage, and of fertilizing themselves by processes of pulverization and by adding to them clay or marl, may, according to SINCLAIR'S

recommendation, be sown with a mixture of 3 pecks of barley-like sheep's fescue, 3 pecks of cock's-foot, 1 peck of crested dog's-tail, 2 pecks of yellow oat grass, 1 peck of rye grass, 1 peck of flat-stalked meadow grass, 1½ peck of various-leaved fescue, 2 pecks of hard fescue, 1 lb. of lesser bird's trefoil, and 3 lbs. of white clover. Or any average hill land, for permanent sheep pasture, may, according to the recommendation of Mr. STIRLING, of Glenbervie, be sown with a mixture of 9 lbs. of foxtail, 2½ lbs. of cock's-foot, 3½ lbs. of meadow fescue, 4½ lbs. of hard fescue, 4½ lbs. of Italian rye-grass, 3 lbs. of red clover, 4 lbs. of yellow clover, 4 lbs. of white clover, 8 lbs. of timothy grass, 2 lbs. of rib grass, and 1 lb. of yarrow. Or, according to the recommendation of Messrs. GIBBS, of London, light soils for permanent pasture may be sown with a mixture of 3 lbs. of perennial rye grass, 3 lbs. of Italian rye grass, 2 lbs. of meadow foxtail, 4 lbs. of cock's-foot, 2 lbs. of meadow fescue, 2 lbs. of hard fescue, 1 lb. of rough-stalked meadow grass, 2 lbs. of smooth-stalked meadow grass, 3 lbs. of wood meadow grass, 2 lbs. of sweet-scented vernal grass, 2 lbs. of timothy grass, 4 lbs. of red clover, 5 lbs. of white clover, and 3 lbs. of perennial red clover; and heavy soils for permanent pasture may be sown with a mixture of 4 lbs. of perennial rye grass, 4 lbs. of Italian rye grass, 2 lbs. of meadow foxtail, 5 lbs. of cock's-foot, 3 lbs. of meadow fescue, 1 lb. of hard fescue, 2 lbs. of rough-stalked meadow grass, 1 lb. of smooth-stalked meadow grass, 4 lbs. of wood meadow grass, 2 lbs. of sweet-scented vernal grass, 4 lbs. of timothy grass, 5 lbs. of red clover, 6 lbs. of white clover, and 4 lbs. of perennial white clover. The reasons for intermixing such short-lived plants as Italian rye grass and biennial red clover, are that they spring rapidly up, afford herbage during the first year for stock, and then die out to give place for the diffusion and the increased bulk of the other plants, and that, on the other hand, the more durable plants, if sown without them, must either be sown so thin as not to afford herbage for stock in the first year, or so thick as to incommode and tangle one another in the second and following years.

"For dry lands, a good addition to all judicious mixtures of true grasses and clovers, be the mixtures what they may, is from 2 lbs. to 4 lbs. of sheep's fescue to every acre of elevated sheep pasture, and 10 oz. of yarrow to every acre of light low land. But for healthy or moory lands, which have been pared and burned, or which have been otherwise operated upon with a view to the improvement of their capacities for herbage, only the cheapest and most facile mixtures can be afforded. When the lands are less than 500 feet of altitude above sea level, and are tolerably dry, a sufficient mixture, along with a corn crop, may be either 25 lbs. of mixed hay seeds, and 5½ lbs. of white clover, or 17 lbs. of mixed hay seeds, 3½ lbs. of Italian rye grass, and 5½ lbs. of white clover; and without a corn crop, may be either 32 lbs. of mixed hay seeds, 6½ lbs. of white clover, and two-thirds of a bushel of rye or barley, or 21 lbs. of mixed hay seeds, 4½ lbs. of Italian rye grass, 6½ lbs. of white clover, and two-thirds of a bushel of rye or barley. If the lands are wet, part of the mixed hay seeds may be substituted by from 14 lbs. to 34 lbs. of timothy grass, from 2 lbs. to 3½ lbs. of rough-stalked meadow grass, from 1 lb. to 2 lbs. of meadow soft grass, and from 1 lb. to 2 lbs. of fiorin; and if the lands are 500 feet or upwards of altitude above the level of the sea, especially if they are dry and intended for sheep pasture, the whole mixture may consist of 2½ lbs. of sheep's fescue, 1 lb. of zig-zag hair grass, 2 lbs. of hard fescue, and 2 lbs. of perennial red clover.

"Pasture land, when intended to produce the greatest possible quantity of good herbage during the months of winter and early spring, obviously requires to be sown with a peculiar selection of grasses; and if it be of any ordinary quality, it may, according to the recommendation of the late Mr. SINCLAIR, be advantageously sown with a mixture of 4 pecks of cock's foot, 3 pecks of meadow fescue, ¾ of a peck of meadow cat's-tail or true timothy grass, 1 peck of broad-leaved bent or fiorin, 2 pecks of tall oat-like soft grass, 2 pecks of burnet, 6 lbs. of perennial red clover, and 8 lbs. of white clover. If the land have very heavy soil, and be constantly depastured with cattle, some tall fertile meadow grass ought to be added to the mixture; and if the land have a poor soil and possess considerable elevation, some wooly soft grass ought to be added.

"A water meadow, with a light soil, may be sown with a mixture of 2½ lbs. of fiorin, 1½ lb. of meadow foxtail, 1 lb. of loliaceous fescue, 2½ lbs. of meadow fescue, 1½ lb. of tall fescue, 2½ lbs. of floating glyceria, 6 lbs. of Italian rye grass, 7 lbs. of perennial rye grass, 1 lb. of reed canary grass, 2 lbs. of timothy grass, 2¾ lbs. of rough-stalked meadow grass, and 2 lbs. of greater bird's-foot trefoil. A water meadow, with a heavy soil, may be sown with a mixture of 2¾ lbs. of fiorin, 1¾ lb. of meadow foxtail, 3 lbs. of loliaceous fescue, 2½ lbs. of meadow fescue, 2 lbs. of tall fescue, 2¾ lbs. of floating glyceria, 6 lbs. of Italian rye grass, 7 lbs. of perennial rye grass, 1½ lb. of reed canary grass, 3½ lbs. of timothy grass, 3½ lbs. of rough-stalked meadow grass, and 2 lbs. of greater bird's-foot trefoil. A water meadow, of medium quality of soil, may of course be sown with quantities intermediate between those for the light soil and the heavy soil. In all cases, also, a bushel of rye seeds per acre may be sown to shelter the seedling meadow grasses; and when the expense of the mixtures is felt to be an objection, this may be lessened to the amount of from 4s. to 5s. per acre by excluding the meadow foxtail, and taking only half the quantity of the greater bird's-foot trefoil. 'Under most circumstances, however,' says Mr. LAWSON, the recommender of the mixtures, 'it will be advisable to retain the full quantity of the greater bird's-foot trefoil, not only from its being the best adapted of the clover tribe for withstanding excess of moisture, but also from its attaining to full maturity at a late period of the season, when the growth of the grasses generally becomes less vigorous.'

"A mixture for sowing with a grain crop in the alternate husbandry, whether the forage is intended for one year, for two years, or even for three years, has very generally consisted of simply perennial rye grass, red clover and white clover, varying in proportion according to the nature of the soil, the circumstances of the culture, and the judgment or caprice of the farmer. Sainfoin and lucerne have also been

favorites in some parts of England; the hop-like trefoil, *Medicago lupulina*, under the misnomer of yellow clover, has, somewhat absurdly, become a favorite in some parts of the lowlands of Scotland; and when only one year's forage is wanted, the main or the sole reliance is very commonly on annual rye grass and annual red clover. But of late years, other plants, both of the grasses, and of other orders, have, with various degree of success, come into use with very many enterprising farmers. The Italian rye grass, on account of the rapidity of its growth, the sweetness of its taste, and the bulk of its produce, seemed to claim chief and enthusiastic favor; but it so speedily overtops almost every thing else with which it is sown, as, after fair trial, to be generally pronounced unsuitable. Such of the plants as are of slower growth and longer duration, however, abundantly deserve attention in all cases in which forage for two or three years is required. Farmers have, on the whole, paid good and praiseworthy attention to the improved sowing of permanent pastures; but they are unaccountably and miserably inadvertant to the improved sowing of the temporary grass lands of the alternate husbandry. 'For three years' pasturage on good soils,' says Mr. LAWSON, 'the substitution of 2 lbs. of *Dactylis glomerata*, the common rough cock's-foot, for about 3 lbs. of the perennial rye grass, will be found advantageous; while in sheep pastures the addition of 1 lb. per acre of parsley seed, *Petroselinum sativum*, would also be attended with good results; and in certain upland districts, established practice will point out the introduction of 2 lbs. or 3 lbs. of rib-grass, *Plantago lanceolata*. In proportion to the retentiveness of heavy soils, as well as for those of a peaty nature, *Phleum pratense*, the meadow cat's-tail, should be added, to the extent of 2½ lbs. to 3½ lbs. per acre.' Parsley may perhaps appear to some persons a strange ingredient in sheep pasture; but, in addition to its own nourishing properties, it serves as a condiment to all the other herbage, and it is highly relished by sheep, and never allowed by them to run to seed."

FARMING IN MIDDLESEX COUNTY, MASS.

WE are indebted to SIMON BROWN, Esq., editor of the *New England Farmer*, for a copy of the *Transactions of the Middlesex County Agricultural Society*, for 1853, from which we extract Mr. ELIJAH WOOD, JR.'S, statement of his farm management, he being an applicant for a premium on the same:

"The farm, in part, which I offer for premium, I purchased in 1840, it being in a low state of cultivation, with a large proportion of pine plain land, which had been cropped to death with rye. The buildings were very poor and inconvenient. The main house had been thoroughly repaired, new put up, making a convenient tenement for my father and myself. The barn has been built anew. The first year after the purchase, all the stock that could be kept in the winter on English hay, was five cows and a horse, and that, a share of it, was cut where the cows are pastured now. Since that time I have added some 140 acres; about equal proportions of meadow, woodland, and light pasturing. The pasturing has all been plowed and manured, except the last, purchased in 1849, and that comes in turn next year. I plant with corn one or two years, as the case may be, plowing from seven to eleven inches, according to the depth it was turned before, and the nature of the soil, endeavoring to run a little deeper every year, spreading on from 25 to 32 loads of compost manure to the acre, and plow again (if sod land) as low as can be without disturbing the sod, (if not) make one turning answer the purpose. I have this year used the swivel plow to avoid the dead furrow. I prepared a compost for the corn-hills, never more than 300 lbs., of guano for the six acres (this year only 150 lbs.), with about four proportions of plaster. All the ashes made in the house, and excrements from 20 hens, are mixed with two loads of loam, and thrown over every day till used, when but a small handful is put in each hill. The crop is hoed level three times, sowing before the last hoeing six quarts of herds-grass, one peck of red-top, and five pounds clover. If exclusively for pasturing, I sow three or four pounds of white clover. In that way I have raised for five years, an average of not less than forty bushels of sound corn to the acre. If the grass fails, in part, I scatter more seed in the spring and bush it in. When it is to be grazed the cows are kept from it till it gets a good start, sometimes a foot high. Nearly all my high land has been laid down in that way for twelve years, because of the saving of labor. My pasturing is in four lots, and I am convinced of many advantages in the division. More stock can be kept, by one-eighth, on a given number of acres; and by keeping on each, one week at a time, when you come to the fourth the grass must be fresh and large, and the cattle are quiet and peaceable, which is not the case when in one lot; I am a believer in the old saying, that a 'change of pasture makes fat calves.'

"Of stock, I made a small beginning, keeping but four cows the first summer, and hired part of the pasturing at that; and in the winter kept seven, partly on meadow hay. Now I keep twenty-five head in the winter on the same number of acres mowed over, and what land I have bought helps to increase the number from thirty-seven to forty with the additional purchase of $30 worth of meadow grass standing. In the summer, I keep from fifteen to twenty cows, varying as my customer wants milk, knowing that he must be supplied in August when the feed is short, as well as in June when it is green and sweet.

"Moist land I depend upon entirely for grass, having turned nearly all my high land to pasture except a few acres, an orchard, where I raise all kinds of vegetables, southern corn, &c. I am fully satisfied of one fact, that the more land a person has (if he undertakes to cultivate and manure it sparsely) the poorer he is. I have about thirty-five acres of the moist land, twenty of which have been reclaimed, the rest is on the river, and liable to be covered with water one-third of the year; experience has taught me to let that alone. My great desire was to improve the land—never being satisfied to raise *only* my own corn and potatoes; some four acres have been graveled by my father, but improvements on meadows in those days were hardly known. The meadow was uneven, and not sufficiently drained, all the ditches

running from the edge to the center, not even one head ditch on the whole farm. The gravel in some places was a foot thick and in others very shallow. Draining and plowing those pieces and incorporating the gravel with the mud, were among the first of my improvements, causing the land to produce two crops every year since. I plow late in the fall, land that has been once fixed, and sow with oats and grass seed the next June, because I cannot spare the feed in the fall. New meadow should always be plowed if possible; if not, gravel; never burn except to get rid of roots, or stumps, or hassocks bogged off, and then gravel or level up with loam. I have seen the bad effect of burning meadows on some of my neighbor's farms. Ashes produce great crops for three or four years, and then it is in a worse state (if not heavily manured) than before. Ashes in their effects are precisely like rum, exciting for a short time. Some of the land that I have reclaimed was very miry, requiring the plow to be drawn with ropes attached to something permanent on hard land; other lots have been graveled in the winter when frozen.

"Some three acres were completely covered with wood and brush; the stumps were taken out, the heights were bogged off, and burned, then loam and gravel from an old road spread over it. The last lot that I reclaimed was very near the river; it was covered with alder and skunk-cabbage, and so wet that man or beast could hardly walk on it. Now, it is one of the best pieces on the farm. Draining is the foundation of all improvement in low land, and requires more judgment than either of the other departments of farm work. Marginal drains must be run—where, and how near together, is the question. I have of that description, with stone laid in the bottom, and covered, between five and six hundred rods, and one hundred rods with joist, and pieces of rails, and boards in the bottom. The first cost of covered drain, is much more than those of open, but after once made, more grass will grow on them than on other parts of the piece; there is no cleaning out to be done, and they will last as long as the present generation. We have in our vicinity hundreds of acres of land, not mud, but black soil, where the water oozes out till June, which, if it was taken off, would produce twice the hay, with the same manure, and that of a much better quality. If stone are scarce there are other materials. Where there is a will there is a way.

"I have set three hundred and fifty trees of different varieties, mostly Apple, which are doing well; except the first hundred; in that lot I was deceived, the seller not giving me the trees I bought, viz: large and well-shaped heads, but sent me crooked trees and without limbs. I soon became discouraged, partly on account of the poor trees, and on account of *encroachments* and distance from home. The land is now laid down to grass, and the few remaining trees will soon die a natural death, I hope. Dear-bought experience has taught me that I had better pay a dollar for a good tree, than to have a poor one for nothing. By a good one, I mean one that has large and fibrous roots, a straight trunk with the top well shaped and trimmed, and high enough to let the team near it. Of the whole number, all started but six the first season; some few have died in the hard winters, and Peach trees from the effects of the borer. Always mulched them the first year. I believe it no use to undertake to raise fruit without the mind is made up to keep the ground under cultivation at least two years in three. As to manure, it has been my constant effort to make and use as much as possible, from the barn-cellar, yard, hog-pen, vault, sink-drain, &c., always using it the present season. I keep loam constantly in the cellar which is ready to be put to the droppings. It is always thrown over directly after haying, and used either for fall seeding or for a top dressing. I then commence a new pile by wheeling loam into the leanto through a door expressly for the purpose, and put it down the trap doors, and by so doing the manure thrown over below can remain for a while. I used as a top dressing last year four hundred loads. Everything collected, up to November, is used on grass. I then commence the winter stock by carrying one hundred loads of mud or black earth to the cellar, and throw on to the droppings during the winter as often as once a week. I find it almost impossible to make manure heat in my cellar, and for that reason I carry it to the field to mix. I consider it one man's time for the year to do the work connected with the manure heap. When I commenced on the farm little help was hired, but from year to year more help was needed, and for the last three years in summer have had three men and worked out more or less. In this account no credit is given for labor of man and oxen which were kept in winter drawing wood, stone and gravel, for the benefit of the farm.

"*Receipts in* 1852.

Milk at the car,	$1573.75
Rutabagas and carrots,	167.00
For work off the farm,	211.00
" apples sold,	49.00
Calves,	36.00
	$2,036.75

"*Expenses in part.*

Labor of two men,	235.00
One man and boy three months,	78.00
For grass and hay,	97.00
Expenses for grain,	235.00
	$645.00"

AGRICULTURE AND OTHER IMPROVEMENTS IN CIHLI.

THE *Cleveland Herald* contains the following interesting letter from the United States Consul at Valparaiso:

"U. S. CONSULATE, Valparaiso, 1854.

"Agriculture is carried on here in a very primitive state. Farmers use the crooked stick for a plow, though I one day saw some small RUGGLES & MASON'S plows landed with a few poor fanning mills. In getting out wheat they thresh with horses, and throw it into the air to clean the chaff. A drag is a thing unknown; and one being furnished on a hacienda, the peon was found with the drag turned upside down, and he sitting among the teeth, riding. An English cart which had been furnished was returned, the workman saying 'it went too fast for his oxen.' They yoke the oxen after the old Spanish fashion, viz: a straight stick, about seven feet long, strapped round the horns. Their oxen are generally fine, long-bodied, straight animals. The drivers walk in front when driving, and when they want them to go ahead,

punch back with a long cane pole, with an iron point in the end. Going down a hill, one yoke of oxen is put on behind, to hold back.

"The horses are the finest saddle horses I have ever seen—fine limbs, eyes, arched neck, and a decidedly fancy appearance. They have wonderful powers of endurance, and are always ridden on the jump. They are perfectly broke, standing in the street wherever left, and I have never yet seen one offer to bite or kick. The Chillanos are splendid riders, and seem a part and parcel of the horse. I have seen one of them put his finger on a post and hold it there for fifteen minutes, his horse going round on a run; and a favorite sport with them is to lock knees and go round, seeing which will unhorse the other. Horses are cheap; a good one can be bought for two ounces —$34.50. The people go to great expense in saddles, bridles, &c.—the rig of a horse frequently costing from $300 to $500. Silver bits, stirrups, spurs, &c., are used. The country women ride on the right side of the horse. There are not over four or five carriages, and but one buggy, that I have seen in this city. The common vehicle is a large stout gig, one horse in the shafts and the rider on another, attached with a rope to the shafts. This is the only conveyance to Santiago, the capital, eighty miles inland. For a change of horses, they start with six or eight here, and run them along the road, and every few miles catch up one and put him in the shafts, turning the other loose to run with the rest.

"There is a good road from here to Santiago. The trade is carried on entirely by ox-carts—taking, at this season, about a week to make the trip; and in winter two weeks. A friend counted between here and Casablanca, thirty-six miles, 360 of these carts. All the merchandise, goods, &c., and the flour, produce, &c., are transported thence, and from there on these carts. A railroad is located to Santiago, going up the valley of the Quillotee river, about forty miles of which will be completed in three or four years. The length of the road is 110 miles; and the estimated cost seven and a half millions. All public, and in fact private, enterprises move slow among these people. They have no knowledge of, and are rather averse to, labor-saving machinery. There is a telegraph between here and Santiago, but it is with difficulty kept up. The natives, thinking it some mysterious, heretic affair, are constantly breaking the wires and cutting down the poles. Your neighbors at Erie would find able coadjutors in this country, and had better send down here for a detachment of peons.

"We have a mail once in two weeks from the United States, and we get arrivals from California by ships in from forty-two to fifty-eight days, and from Australia in forty-five.

"As to the government, although a republic in name, it is a kind of ecclesiastical, military concern, the Archbishop being in point of fact the ruling genius.

"Protestant meetings are allowed here, but no bells or steeples are permitted on their churches. Funerals are not permitted in the day time. The dead are carried to the Pantheon at 12 o'clock at night; next morning the funeral takes place in the chapel there. The poor Catholics are all buried in one ground; and not two in a hundred have a coffin. They are buried for a short period, and then taken up and thrown down a deep pit, which is in the middle of the burying ground. The rich, if they pay enough, are permitted to rest; but if not, are dug up, and with their coffins burned, or thrown down the same place.

"The province of Valparaiso is about one of the poorest in soil and productions of any in the country; and the fruits, vegetables, &c., are mostly brought from the Quillotee valley, a distance of forty miles. We have now apples, sweet, which look exactly like the *Newtown Pippins*, lemons, oranges, figs, six kinds of pears, three of blue plums, three of yellow and green, peaches (six varieties), melons, apricots, nectarines, and all the vegetables we have at home. The fruits are pretty good—plums very fine. Cannot learn if they have the curculio in this country. The grape flourishes extraordinarily—immense vineyards in the interior. I notice in the market the *White Sweet Water*, the Portugal grape of commerce, and two varieties of purple, called Francisco grapes, because they came from California. I have seen bunches fifteen or eighteen inches long, and six or eight across the shoulder, good, but not high flavor; they make wine—one a light, and one kind quite like the Port.

"The grape season, they say, will last two and a half months. We had strawberries from the middle of October to the first of January. They are very large, equaling the largest *Hovey*—vines and leaves very large, flesh very firm, but not the high flavor. All the fruits want our hot sun to bring out the flavor. They have two kinds of cherries—*Early May* and black—both good for nothing. No currants, gooseberries or raspberries. The rocks all about the city are covered with Cactus, two varieties, purple and white, Snap Dragon, and a variety of smaller flowers and small shrubbery. I have noticed the potato vine among the rest. The largest tree I have seen in Valparaiso is an Orange in a public garden, eighteen inches through; an Auricanian Pine, thirty feet high, but of no account, and Norfolk Pines, very handsome. The soil, as far as I have observed, is strongly colored with oxide of iron, and has clay in it enough to make good mortar, which is in general use inside of buildings as well as out. The soil is said to be wonderfully fertile wherever it can be irrigated."

FARMING ON THE SANDWICH ISLANDS.

As there is little doubt that the Hawaiian Islands will soon become a part of the United States, whatever relates to their agriculture is likely to be read with attention by our young and enterprising farmers. The Chief Justice under the present government is a native of New York, and has $100,000 invested in a sugar plantation, which up to this time has not proved a profitable operation. A correspondent of the *National Era* writes as follows:

"I need not speak of Honolulu as she has been these several years, only to say, that, having a safe and capacious harbor, a good supply of fresh water, and other means of comfort and convenience for seamen, there has, of late, been a considerable increase of shipping at that port. The village, for 'tis noth-

ing more than a village, though sometimes called a city, has, of course, grown quite fast, and many large buildings are now being erected—stores, inns, dwelling houses, and shops. A large and very fine, flouring mill is nearly up, and another house, for public worship, will soon be built. The streets are being improved, and new ones opened; the old markets torn down, and spacious and convenient ones erected in their place. I think Honolulu is growing quite as fast as a healthy state of the system will allow. A much more rapid growth would not be desirable, in my opinion.

"Lahaina has no harbor—nothing but an open roadstead; and though perfectly safe for most of the year, still it is impossible that ship-masters should have the same feeling of security that they have in the inner harbor of Honolulu.

"Hawaii will never be a sugar manufacturing island. 'Tis too much broken up by deep ravines. Maui has had six respectably large establishments, four of them quite large. There are now only *three*. Each of these establishments, exclusive of the lands, cost from $75,000 to $100,000, and are capable of producing at least 300 tons of excellent sugar per year. The lands on Maui are well adapted to the growth of sugar-cane; I have never known a serious failure of this crop on the island. On Oahu there are no plantations, nor on Molokai, excepting small Chinese ones. Kanai has two, one tolerably large and profitable; the other a steam-mill, erected at great cost, but as yet unprofitable, owing chiefly to the failure of cane crops.

"In regard to agricultural interests among us, I feel more encouraged than I have ever done during my residence of more than twenty-five years on the islands. I think there is a waking up generally among us on the subject. In my neighborhood both foreigners and natives are engaging in the business of wheat-raising. A young Hawaiian farmer raised the last year 186 bushels of fine wheat, and he will probably put in thirty or forty acres the present season; and he would do much more than this, but for the fear that he cannot get it cut. Several others are putting in. One foreigner designs to put in 800 acres; and it is thought that some 1,500 acres will be sown in Makawao and vicinity. A large flouring mill is being built at Honolulu, so that all who raise it will find a market for their grain.

"Corn, oats, and barley, can be raised easily and abundantly on all the islands; the sweet and Irish potato, onions, squashes, and melons of all kinds, and of fine quality. Very fine garden vegetables are being produced at Honolulu, and will soon be at other places on all the islands, I have no doubt. In addition to fruits, which are indigenous to the islands, such as oranges, lemons, citrons, guavas, figs, pine-apples, &c., we have peaches; and apples, pears, plums, and cherries, will doubtless be introduced. At Lahaina grapes do well, and they may be raised at other places. The islands are small, and there is a great deal of broken land, mountains, deep ravines, and lava plains. Still the soil is good, the climate delightful, and, facilities for trade being fine, I have no hesitation in saying that it might be a delightful and happy country. We have had a specimen of French and English treatment, and few if any among us desire more. Still I am opposed to annexation. The poor Hawaiians would soon feel the withering influence. Besides, I have not a doubt that the fires of the distillery would be kindled and the land be deluged with rum.

"I have scarcely a doubt that the leading men of Honolulu will agitate the subject of annexation till the thing is brought about. The fact that the opponents of Dr. JUDD, the late Minister of Finance, are continually brewing mischief, seeking to gratify their private dislike, though it should weaken or destroy the government, is the most alarming one, to my mind, of any connected with the subject of annexation. If a proposition for annexation shall soon be made to your government, you may take it for granted that the king has been driven to it by the threats of men who go by the unlovely name of filibusters.

"J. S. GREEN."

THE GUANO TRADE.

DR. JAMES HIGGINS, the State Agricultural Chemist of Maryland, in a letter to the *Washington Union* in relation to the high price of guano, gives the following interesting facts touching the present condition of the trade in the article:

"Peru owes about $60,000,000, for which she has pledged her guano. Of this debt, full one-half is due to English holders of her bonds, whose agents are ANTHONY GIBBS & Son; the balance is due to the following houses, who have either loaned that government money on the pledge of guano consignments, or are the agents of houses which have done so, viz: MONTANE, in France; MURETTA & Co., in Spain; J. LEVELLAIR & Son, in China; FENDALL, for Mauritius and other islands; and BARREDA & Bro., for the United States. These firms have either loaned particular sums of money to the government of Peru on the pledges of certain amounts of guano, or have agreed to furnish money on consignments of guano in the same manner as our commission merchants do.

"The profit on guano in England to the importer, in 1847, was about twenty-three dollars per ton; but, as freights have advanced since that time, the profits are from eighteen to twenty dollars, which I suppose to be about equal to those realized from its sale in this country."

Dr. H. adds that he learns from a most reliable source that the quantity of guano which will be brought to the United States this year, will be about 200,000 tons.

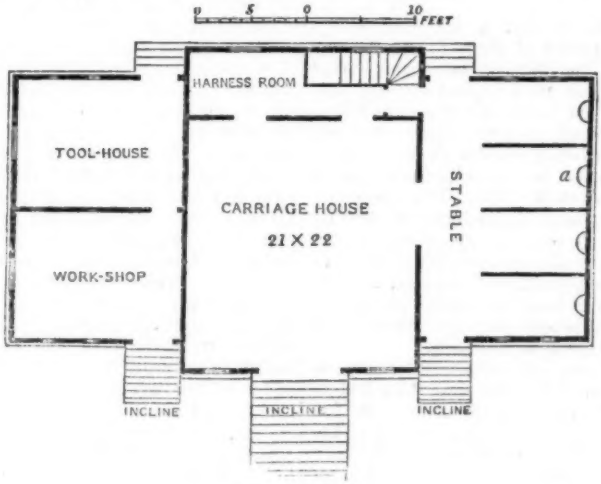
Two hundred thousand tons of guano purchased at fifty-five dollars a ton (the present price in New York), will take out of the country eleven million dollars for imported manure. For a comparatively new country, this is a startling fact. All the corn and corn meal exported in the last fiscal year amounted to less than two and a half million dollars. When will our people see the folly of wasting so much of the elements of crops in all their cities and villages, and in almost every rural district, and then sending to the west coast of South America for ten million dollars' worth of manure?

CARRIAGE-HOUSE AND STABLE.

We present our readees this month with a perspective view and ground plan of a barn and stable. This stable is intended to produce a picturesque effect

DESIGN FOR CARRIAGE-HOUSE AND STABLE.

externally, and to contain internally all the convenience demanded in a building of this class. The central portion contains the carriage-house, with a space for four vehicles, and a harness-room at the end of it. On one side of this is the stable—the stalls 5½ feet wide, with rack supplied with hay through



GROUND PLAN.

wells over each rack, in the floor of the hay-loft above. A flight of stairs leads from the end of the stable to the hay-loft above, and is placed here (and not in the carriage-house as we frequently see it) in order to prevent any dust from the hay-loft from finding its way into the carriage-house. On the other side of the carriage-house are a tool-house and work-shop. All the doors in this stable slide upon iron rollers running upon a piece of plain bar iron above the door. These iron rollers are attached firmly to the door by iron straps; and the door, being thus suspended, not only runs much more easily and freely than if the track were at the bottom, as is usually the case, but the track is not liable to get clogged by dust or other matters falling upon the floor. Besides this, a sliding door in a stable, when opened, gives the largest possible egress in a given space, and can never stand in the way to the injury of horses or carriages passing in or out on either side. The high roof gives a good deal of room in the hay-loft, and the ventilation on the top keeps this space cool at all seasons.

AMERICAN FARMERS IN PALESTINE.

THE following interesting statement of a new agricultural enterprise near Jerusalem, is copied from a late number of the *New York Tribune:*

"Two years ago, an effort was made in a new line to ameliorate the condition of the inhabitants of Palestine. Seven Americans, with improved plows and other tools, and American seeds, located upon a piece of land seven miles from Jerusalem, one mile from Bethlehem, and made preparations for farming after the American system.

"Their location was in the valley of Artos, upon the very site of one of the gardens of SOLOMON.

"Their friends in the city were much opposed to their going out their to reside, urging them, if they were determined to try to cultivate the soil, to keep their residence in the city, for fear of the Arabs. This did not suit their plans, and they took up their residence upon the land and commenced operations, plowing deep with one of our best plows, harrowing with an iron toothed harrow, such as was never seen their before, and planting corn, potatoes, beans, peas, oats, barley, wheat, and all sorts of garden vegetables; in short, making a perfect American farm.

"The operations, instead of exciting the jealousy of the Arabs, aroused them to a state of surprise, and the news of what the Americans at SOLOMON'S were doing, and the wonderful tools they were using, and how peaceable and quiet they were, never saying anything about their religion, flew on the wings of the wind, and visitors came to look and wonder, from far and near. The operations of the carpenter and blacksmith were not among the least sources of wonder. The rapid manner in which he heated his iron, and hammered it into just such shape as he desired, was beyond the comprehension of the simple-minded people.

"One day the farm received a visit from twenty-five Sheiks, who inspected all the tools and the way they were used, and the effect produced, and looked at the growing crops, so much beyond anything they had ever seen produced before, and then turned their heads together to consult upon the wonders they had witnessed. The conclusion was that the people must possess a very superior kind of religion, as that is the standard upon which they base all their estimates of character. They made applications at once for several of their sons to serve as apprentices to learn American farming, and did not even object that they should be taught the principles of American religion; for surely, said they, it must be a good religion, as these are very good people, and GOD blesses their labor beyond any other in all Palestine.

"It would have been dangerous now for any one to molest the American farmers, since they had all the Sheiks and principal men in the country on their side, and anxious for their success and influence. The Jews, too, began to think it would be better for them to cultivate such a fruitful soil than starve in the city, as many of them have done, and they began to apply for situations as laborers, notwithstanding the priests always taught them that it was derogatory to the national character of the Hebrews to till the soil. Though, if they had undertaken it by themselves, they would not have been permitted by the Arabs, who hunt them as they would wild beasts. But, under the protection of the American farmers, the Arabs will permit them to labor, and it is now a matter of serious discussion among those who know of the success of this enterprise, whether the most feasible plan for colonizing the Jews in Palestine is not to make them cultivators of its rich soil.

"Owing to some difficulty which arose in regard to the title of the land, they commenced upon in the Valley of the Artos, the little colony moved last year to the Plains of Sharon, where they have got a permanent location, and the number consists now of ten Americans, male and female, and two Germans.

"One of the number was in our office a few days since, from whom we derived these facts. He speaks in most encouraging terms of the success of the agricultural project, and ultimately, by that means, of an influence upon the inhabitants, that will eventually result in great good.

"This effort has been made through the liberality of a few Christians in this city, and by the same spirit that actuated the first movers in the work, immense benefits may be conferred upon that country. All that is wanted to make it a desirable country for the emigrants of Europe is an increase of the present colony sufficient to form a nucleus or rallying-point, and more extended operations, and a gradual drawing in of the resident population to adopt the same modes of producing the varied and profitable products of the soil."

NEBRASKA AND KANSAS.

DR. BASBOM, late editor of the *Ohio State Journal,* is now traveling through Nebraska and Kansas, and is writing a series of interesting letters to the *Journal.* We clip the following from one of them:

"Before we passed the Kansas, we came upon an encampment that attracted attention. It turned out to be a grand hunting company from the plains. Sir GEORGE GORE, an English Baronet, has taken it into his head that it will be fine sport to hunt buffalo, &c., on our great western plains. So he packed up his trunks, &c., and started for a regular summer campaign. He brought the most magnificent pack of dogs that were ever seen in this country. Between forty and fifty dogs, mostly grey-hounds and stag-hounds, of the most beautiful breeds, compose this part of the expedition. He had a large carriage, and probably a dozen large wagons to transport provisions, &c. These require five yoke of oxen to each wagon. These, with the horses, men, &c., made up quite an imposing company. Sir GEORGE is a fine-built, stout, light-haired, and resolute-looking man. But there are other things besides fun in such a trip, and it will try the manner of stuff of which he is made before he returns.

"Between Kansas and Westport we passed an encampment of 3,000 Mormons, who were on their way to the great Salt Lake. They were waiting for the balance of their company, and had been encamped there for several days. They were in a fine forest. Some were sleeping in their wagons, but the most of them had tents, and the woods and fields adjoining, in all directions, were covered with these white and fragile dwellings. Oxen are used for teams. Men,

women and children were scattered about on all sides. Blacksmiths' hammers were heard, and the hum of preparation came up from all parts of the camp. It was a singular sight, and fraught with many suggestions and reflections upon this strange and deluded people. These emigrants are generally from Europe, and the most of them do not speak a word of English. They have a long journey before them. The cholera is said to be among them; but I have heard so many rumors of this disease out west on the rivers, &c., and have seen so little of it, that I have lost all confidence in the truth of these stories."

Ours is indeed a strange land, and we are fast becoming a strange people. Between Europe on the east and Asia on the west, this continent is soon to become the greatest thoroughfare of mankind in the known world. Immigrants from China and from Europe meet on the summit of the Rocky Mountains, and are fast filling up all the plains on either side of the great spine of the New World.

FOUL-IN-THE-FOOT.

This is a disease in the feet of cattle. It presents a close resemblance both to footrot in sheep and to mild cases of quittor in horses, but really differs from both. M. Favre, of Geneva (Switzerland), inoculated the feet of sheep with purulent matter from the feet of cattle suffering with foul-in-the-foot; but he did not succeed in producing any symptoms similar to those of footrot. Foul-in-the-foot appears to be always occasioned by the neglect and aggravation of wounds and ulcers originating in mechanical injury, particularly in the insinuating of pieces of slate, stone or stiff wood between the claws of the hoof, or in the wearing, splitting or bruising of the horn, and consequent abrasion of the sensible foot, by walking for an undue length of time upon flinty roads or other hard and eroding surfaces. It is sometimes ascribed, indeed, to a moist state of the pastures, and sometimes to contagious action; but moisture merely predisposes to it by softening the hoof and diminishing its power of resisting mechanical injury; and contagious action can take place only when the disease is carelessly and cruelly allowed to proceed till it makes copious discharges and putrid pus upon the ground, and when the hoofs of some of the sound cattle are so worn or broken as to allow this pus to have access to the absorbents of the foot.

The ulcers of foul-in-the-foot usually occur about the coronet, and extend under the hoof, and cause much inflammatory action, very great pain, and more or less separation of the hoof; but they very generally originate in uneven pressure upon the sole, and rise upward from a crack between the claws, and are principally or wholly confined to one side or claw of the foot. A fetid purulent discharge proceeds from the ulcers; and a sinus may sometimes be discovered by means of the probe to descend from the coronet beneath the hoof. The affected animal is excessively lame, and may possibly suffer such excessive pain as to lose all appetite and become sickly and emaciated.

A common method with cow-doctors is to clean the foot, to rub it backward and forward between the claws with a cart-rope, and to dress it with a little butyr of antimony; but either this treatment or anything similar is both coarse and inhuman. If the disease have a very mild form, or be merely in the initiatory stage, it may be readily cured by cleaning, fomentation, and rest, or also by bleeding from the veins of the coronet; if it have a medium character between mild an virulent, it may be cured by cleaning, by cutting away the loose horn, by destroying any fungous growth, and by applying a little butyr of antimony; and if it have a very bad form, or have been long neglected, or have become very aggravated, it will require to be probed, lanced, or otherwise dealt with according to good surgical practice, and afterwards poulticed twice a day with linseed meal, and frequently but lightly touched with butyr of antimony.

CORN BREAD.

Mr. Editor:—In your interesting statistical article on "Wheat-culture in the United States and Canada," you say that "in Northern and Central Europe, in Italy, France and the United States, brown bread and corn bread are giving place to wheat bread, wherever the former have long been eaten. 'Rye and Indian' in New England, 'hoe-cake' 'pones' and 'corn dodgers' at the South and South-west, are becoming historical. Place good wheat bread and that made of meal on the tables of the million, and the old habit of eating meal bread, or meal dumplings and porridge, will in a few years cease to exist."

I do not know how it may be in Europe, but in America that bread which is made of Indian corn meal, or in which such meal is a large component, is consumed at this time not only in larger quantity, but in greater ratio with the population, than it ever was before in these United States. A late traveler writing from Mississippi, Louisiana and Texas, says that corn bread is the only bread eaten there, even by those comparatively wealthy cotton-planters, who rejoice in a net profit in their farming of at least $3000 a year; yet on board the steamer that takes their cotton to market, flour in barrels may be purchased at all times. In New England, corn bread, in some of its forms, is eaten by every class. Wheaten biscuit or hot rolls are also common, but the wheaten loaf so common in Western New York is rarely seen there. In New York and the West, it is not the laboring poor who eat the most Indian, or wheat and Indian, or rye and Indian, for the reason that such bread requires more skill to make it palatable than is required to make palatable wheaten bread; and besides, much of the corn meal sold at the grocers is made of corn injured in keeping, or it has at least lost its *nutty* flavor by too much exposure to the warm, moist atmosphere.

But in proof that the use of corn meal for bread never was greater than at this time, our millers, one and all, aver that grists of corn ground for the domestic use of farmers, and their sales of Indian meal to individuals and grocers, are at least four times greater than they were a year or two ago. When wheat flour is cheaper, less meal may be eaten; but methinks the use of that king of our cereals, Indian corn, as food for the sovereign people, is to become henceforth more and more common, until the women

throughout the great West become as well skilled in the art of making the rare johnny-cake, and rye and Indian, or wheat and Indian, as the famed matrons of Yankee land. This consummation will be hastened by the same causes which made Indian meal take the place of wheat flour in New England—a better adaptation of soil and climate to the successful culture of Indian corn. In many counties of Western New York, when wheat was once the great paying crop, that cereal, owing in part to the exhaustion of the wheat-growing pabulum in the soil, and in part to winter killing and insect enemies, is now considered hardly worth growing; but on the other hand, the crops of Indian corn are always on the increase, and never failing.

Bread made wholly or in part from Indian meal, is, at least by way of change, more palatable, if well made, than the wheaten loaf. The hot johnny-cake from the kitchen range, or the hot loaf of rye and Indian from the baker's basket, is considered at Newport the prominent luxury of the breakfast table, without which the *tautog grillé aux onions* would be set at naught. S. W.

PETTITTS FISHERIES GUANO.*

This paper commenced by stating that guano was generally understood to have been introduced to the notice of Europeans by Von Humboldt, in 1804. It was brought to England as an object of merchandise in 1839. It had been used in Peru for 100 years and upwards, and the island depositories had been for ages under the management of the State.

In 1841, Professor Johnston gave the price of guano as £52 per ton in this country, and not more than £2 5s. to £3 10s. on the spot; and having made an analysis, and calculated the price at which the same amount of fertilizing matter might be added to the soil from the manufactories of this country (say £9 10s.), he deduced that the British farmer should not be called upon to pay more than £20 per ton for Peruvian guano. Mr. Phillip Pusey also gave the same opinion. Of the excrementitious matter voided by sea birds, a very large proportion was decomposed before the guano of commerce was extracted from its beds, and more still before its arrival in this country. Proof of the rapid depreciation of guano in keeping, might be found in the analysis of the dung of birds, by M. de Coindet and Sir Humphrey Davy. Coindet found in recent excrement 8.01 of pure ammonia, and of ammonia in the form of its equivalent of uric acid, 35.20, making a total of 43.81 per cent. Davy found that the soluble matter of the dung of pigeons decreased from 23 per cent. in the recent excrement to 16 per cent. in that of six months old, and to 8 per cent. after fermentation. It appeared that in five years (1845–50), nearly 650,000 tons of guano had been brought almost round the world for the stimulation of the soils of this country; but it was generally believed that the zenith of supply from Peru was past.

From the many analyses of different varieties, it was stated that the amount of ammonia was, in Salhanda Bay, 1.68 per cent.; in Patagonian, 2.55 per cent.; in Cape and Algoa Bay, 2.00 per cent.; and in the New Islands, 1.96 per cent; but in phosphate of lime, which was the next most important element, these guanos were richer as they were poorer in ammonia. The mean amount of phosphate of lime was, in Salhanda Bay, 1.68 per cent.; in Patagonian, 44.00 per cent.; in Cape and Algoa Bay, 20.00 per cent.; and in the New Island, 62.80 per cent. The question, however, arose, whether or not large quantities of such manures could be sold at a price which should not exceed the home cost of superphosphate of lime. Reference was then made to the guano substitute prize of £1000, and the gold medal, which were offered by the Royal Agricultural Society for the discovery of a manure equal in its fertilizing properties to Peruvian guano, and which could be sold at a price not exceeding £5 per ton; and it was contended that, according to the composition of guano, as given by Professor Way, and the known value of these several articles in the markets of commerce, the value of a ton of such material would be upwards of £12, it was not at all probable that any one could dispose of it for £5.

The author then proceeded to describe the fisheries guano of Mr. Pettit, and gave the results of several analyses, from which it was deduced that, according to the scale alluded to, the mean value of the samples tested was £9 7s. 6d. per ton. The manufacture of this guano on a large scale would be carried on by a process of the following nature: A given weight of fishy matter was placed in a large tank, and sulphuric acid of commerce added to the mass. The action of the acid was so powerful as speedily to reduce the organic matter to a soft pulpy consistency, resembling in appearance the fecal matter of birds. This pasty mass being placed in a centrifugal drying machine, and the superabundant moisture forcibly driven off, the partially dry matter was now submitted to a heat not exceeding 212° Fahrenheit, and afterwards pulverized in a suitable manner. In this process the oily matter of the fish separated itself, and swam upon the surface of the liquid, hence it could be easily separated, and formed an important item in the economy of the manufacturer; since, taking all kinds of fishy matter, we obtained an average of 3 per cent. of oil, worth £25 per ton, or three-fourths of the whole expense of the raw material. Another process might in some cases be adopted with advantage, especially with cartilaginous fish. As to the supply of the raw material, it was believed, from testimony of many persons on the coasts, as well as in the evidence in several Blue Books, that an ample supply of refuse fish would be obtained at an average price of £1 per ton; and taking 60 tons of this weekly, the cost of manufacture and incidental expenses would be £10,043 per annum. From this there would result 93 tons of oil, which, at £25 per ton, would give £2,325, and 1,653 tons of guano, at £7 per ton, or £11,571—making together £13,896 as the amount of sales, or a profit of £3,253.—*Glasgow Practical Mechanics' Journal.*

* Read before the Society of Arts, by Horace Green.

Which is it?—Which is the way to health? the Hydro-path, the Allo-path, or the Homœ-path? Where there are so many *paths*, it is hard to know which to follow.

THE PROFIT OF FATTENING SWINE.

The following facts are offered in corroboration of the views advanced in my late article on the profit of fattening swine in New England:

On the 16th of December last I purchased four pigs, which were the remnants of two litters born about the same time in September previous, and put them in warm apartments, embracing a place for making compost and an eating room leading out of it. Once a fortnight or so during the winter, about a cord of either muck or scrapings from the woods was thrown into the pen, and daily the manure from two horses. The pigs were kept bountifully supplied with straw for bedding, which they arranged in one corner of the compost pen to suit themselves. Enough fermentation was generated in the compost to make their bed warm, and so far to keep out frost that it only appeared in a light scum during the very coldest days. The scrapings from the woods containing some nuts, together with the decayed sticks and roots, contributed to the health and thrift of the pigs.

From December 16th to the 18th of March the pigs had as much corn and cob meal as they would readily eat, when it becoming inconvenient to accommodate them longer with apartments, they were sold to the butcher at eight cents per pound, he throwing in the slaughtering.

Immediately after feeding them at a given time, the meal for the next feeding was measured out and put in the bucket and hot water added—the contents standing in a warm place to soak and swell, and becoming very much increased in bulk before being fed to the pigs. The meal consumed was exactly measured from day to day, and the quantity is known to be as follows:

First 29 days four pigs ate				348	quarts, or	12	quarts per day.
Next 49	"	"	"	882	"	18	" "
Next 10	"	"	"	336	"	21	" "

Total corn and cob consumed, ...1566 quarts, or 49 bushels.

In order to satisfy myself of the amount of corn involved in the above 49 bushels of corn and cob meal, I have measured out enough corn in the ear to make, if shelled, just a bushel of corn, had it cracked and ground, and found it made by stricked measure a little more than two bushels of corn and cob meal. An inferior quality of corn in the ear might not quite hold out measure when ground; but I am satisfied that a full medium quality will hold out, where the toll is paid in money, and shall therefore call the above 49 bushels of corn and cob equal to 24½ bushels of clear corn.

The four pigs weighed, dressed, 616 pounds, and made some 10 loads of compost more than would otherwise have been made. They may therefore be accounted with as follows:

616 lbs. of pork, at 8 cents net,		$49.28
Deduct 49 bu. corn and cob, or 24½ bu. clear corn, at $1 per bu.,	$24.50	
Toll for grinding 49 bu. corn and cob, at 4 c. per bu.,	1 96	
Paid for pigs, December 16th, $4 each,	16.00	42.46
Balance over and above $1 per bu. for corn consumed, of 28 cents per bu., or in all		$6.82
And the pigs have left 10 loads of compost, worth a bushel of corn each,	$10.00	
From which deduct, if you please, the cost of supplying the raw material, say 50 cents per load, which is rather too high,	5.00	5.00
Profit on the four pigs,		$11.82

I regret that I did not have the pigs weighed on the 16th of December, because if I had done so it would be easy now to find how much more pork a bushel of corn ground, cooked and fed with the addition of the cob was in this case made; but from as exact an estimate as I can form, judging from the weight of some of the better pigs of these two litters, sold a few days previous to the time I bought mine, I am induced to think the pigs must have gained not far from 15 pounds of pork for each bushel of clear corn consumed; which, considering that the fattening process was conducted during the very coldest portion of the year, argues pretty well for feeding corn and cob ground together.

I have briefly to add to my former remarks on selecting pigs for fattening, that so far as I know, pigs of a round, barrel-like frame, are apt to yield rather thin pork and too much offal; but those having extra *depth* of carcass, and not so fine bred as to lack bone to sustain them while fattening, nor so coarse bred as to be too late in maturing, but of a just proprotion in this regard, are the right kind for profit. Pigs bred too fine, early cripple in the legs when fed high, so that they are unable to exercise sufficiently to promote healthy appetites and strong digestion, and therefore make but light weight, and their pork is not generally so saleable nor desirable for domestic purposes as that of younger pigs of the first quality. Pigs with rough, staring bristles, and a generally well look, are not so kindly to fatten as those of a mellow and wavy appearance and quiet disposition—*F. Holbrook, in the New England Farmer.*

COVERED AND UNCOVERED MANURES.

In the No. of the *Country Gentleman* for February 23d, there is, under the caption of "Truths not yet Adopted in Practice," a very urgent appeal made to farmers to adopt more generally some efficient measure for the protection of their farm-yard manures from the destructive effects of exposure to all the winds, rains and schorching heats of the year. That appeal, we trust, will be heeded by those interested, as many thousands of dollars' worth is annually allowed to go to waste for want of some suitable care of yard manures.

Having lately perused some account of experiments made by Lord Kinnaird, reported in the *Journal of the Royal Agricultural Society* of England, on the comparative value of covered and uncovered manures, it occurred to me that a brief sketch of these experiments and their results might contribute somewhat toward fixing in the public mind an impression of the importance of more care than now generally prevails, in regard to protecting yard manures and saving them from waste.

In 1851, a field of 20 acres, of very equal quality, being a rich loam naturally dry and in good heart, with an exposure to the south, was selected for the experiment, and divided into two equal portions. The manure was applied at the rate of 20 cart loads per acre. The whole field was planted with potatoes; the seed all of one kind; and planted first and second weeks in April. All brairded well, and showed no difference in growth till the first week of July, when a decided superiority began to manifest itself in the

half of the field manured out of the covered yards. The vines on the portion of the field manured from the exposed yards began to decay by the latter end of July, while the other portion of the field still retained its strong dark green. The crops were taken up on the 1st to the 4th of October; and after a careful measurement and weighing of two separate portions in each division, the result was as follows:

With Uncovered Manure.

	tons.	cwt.	lbs.	
1st measurement—one acre produced....	7	6	8	of potatoes.
2d measurement— " "	7	18	99	"

With Covered Manure.

	tons.	cwt.	lbs.	
1st measurement—one acre produced....	11	17	56	of potatoes.
2d measurement— " "	11	12	26	"

As soon as possible after the potatoes were harvested the field was cleaned, plowed, and wheat drilled in at the rate of 3 bushels per acre. As soon as the weather was suitable in the spring, the whole field got a dressing of 3 cwt. of Peruvian guano per acre. During the winter very little difference was apparent; but shortly after the application of the guano, the wheat on that portion manured by the covered dung took a decided lead, which it retained all summer. The whole field was cut on the 26th of August, 1852; the portion manured by the covered dung being at least four days earlier than the other. As before, the two separate portions in each half of the field were measured, cut and stocked separately. On the 4th of September, each portion was threshed, the grain carefully measured, and the straw weighed. On account of a wet season, the grain was of lighter weight than usual, in Great Britain, per bushel. The result of the experiment was as follows:

With Uncovered Manure.

	Produce in Grain.		Weight per bush.	Produce in Straw.	
acre.	bush.	lbs.	lbs.	stones.	lbs.
1st.....	41	19	61½	152 of	22
2d.....	42	38	61½	160	22

With Covered Manure.

1st.....	55	5	61	220 of	22
2d.....	53	47	61	210	22

These and similar experiments have satisfied Lord KINNAIRD of the advantages to be derived from having farm-yard manures put under cover. They seem so conclusive and instructive on this point as to deserve to be brought before the farming classes of this country. Not a few of your readers, we doubt not, will take measures of some kind to profit by them. It will require but a few minutes to determine the probable profits of protecting any certain amount of yard manure. It appears from the above results that Lord KINNAIRD got about 125 bushels of wheat more from the ten acres manured with covered dung, than from the ten acres which had been manured with the uncovered. In wheat alone, then, without taking potatoes or wheat straw into account, the difference in favor of covered manure was quite considerable.—*Correspondent of the Country Gentleman.*

THERE are two reasons why we don't trust a man—one because we don't know him, and the other because we do.

ELOQUENCE without wisdom is like butter without salt—pleasant to the sight, but insipid to the taste.

PREPARING LAND FOR WHEAT.

THERE has a change taken place in the minds of many wheat-growers within a few years past, in regard to the best method of fitting ground for the wheat crop. Formerly, the summer fallow system, plowing the ground early in the season and frequently stirring it afterwards, to intermix and reduce it to fine tilth, was considered the best method; but recently the opinion seems to prevail to considerable extent, both among farmers and their scientific advisers, that by practicing the old method a serious loss is sustained in unnecessary labor, in the loss of the land for pasture or for hay, and in the escape of fertilizing elements, while the soil is thus exposed to the action of the atmosphere; and that a better course is to defer plowing until a later period, and thus obviate the objections urged against the former method.

Here we have two opposite methods of cultivation prevailing, and strenuous advocates for each; but has it yet been fully demonstrated that as remunerating crops of wheat can be grown by the latter method as by the former? Will the general results be the same on different kinds of soil? Again, have we sufficient proof that, by exposing the soil to the action of the atmosphere, we rob it of its fertility; and if so, are all soils affected alike? These are important questions to every farmer, and it is high time they were definitely settled. If we have been losing the use of the land for months yearly, and expending much labor to no purpose, and at the same time been impoverishing the soil, it is certainly time it was known.

Now, as there is no way to determine conflicting theories of this kind but by experiments, I propose to enter upon some the present season (health permitting), to fully test this matter, and, if possible, arrive at the truth. As experiments conducted upon one kind of soil will only be conclusive so far as that soil is concerned, I invite others living in the different sections of our country, occupying different soils, to join me in the effort to settle these important principles of tillage that are now in dispute. The plan I propose to follow in the first experiment is this: I have a field intended for wheat where the clover has run out, and there is but little sward. This field I intend to plow in June, if not earlier, as deep as possible, say twelve or fourteen inches, leaving one-fourth of an acre unplowed until late in the season, and then fit it in the best manner in as little time as possible. An adjoining one-fourth of an acre I design to plow, harrow, cultivate, and roll a dozen times during the season. Then sow the same amount of seed on the different pieces, and sow at the same time, and note carefully the results until harvest; then harvesting and threshing separate, and weighing both wheat and straw. In this way I think I shall be able to determine the difference on a clayey soil of the two methods, and also ascertain whether this kind of soil loses its fertility by being long exposed and frequently stirred.—*L. C., in the Farmers' Companion.*

Careful experiments, we are confident, would only confirm the conclusion to which we long since came—that summer fallowing is well for stiff clays, but not for light soils. The farm can hardly be brought to a fine tilth without it; and their nature is rather to gain than to lose fertilizing elements by exposure to

the atmosphere; while the latter—light soils—are more easily reduced to fine tilth, and so have less need for a long fallowing, and are at the same time more exposed to a loss of fertilizing ingredients by too much exposure to the atmosphere, and so should not be fallowed unnecessarily. A good rule is to begin the preparation of the ground long enough before hand, and to continue it sufficiently often to secure a good tilth. Any thing more than this is at least unnecessary, if not injurious. An important consideration with regard to wheat sowing, is, that if the soil be naturally light, that portion of it which is directly under the seed should be consolidated by artificial means. A common way of effecting this, in England, has heretofore been to turn large numbers of sheep upon the field immediately after sowing and harrowing. The effect of this, however, is rather to harden the surface than to consolidate the soil below the seed; and for this reason the following method is now practiced by very many English and Scotch farmers, viz.: In preparing light, sandy or loamy soils for wheat, two plowmen go ahead, one following the other, and a boy, with a one-horse cart, having two wheels on the off side and but one on the near side, follows them both. Let it be understood that the wheels are all on one axletree. The two on the off side are about one foot apart, and the distance can be varied at pleasure. As the boy follows the plowmen, these off wheels run in the furrows made by the two plows, or rather in the channel between the furrows, thus pressing down and hardening the portion of soil on which the seed will lie, after being sown broadcast, and so harrowed as to be made to fall into the channel prepared for it. There is no reason to doubt that this or some like operation would be highly favorable to the wheat-growing capabilities of the alluvial soils in the Connecticut valley.—*Connecticut Valley Farmer.*

GAIN OF WEIGHT IN CATTLE FEEDING.

In the various publications to which I have had recourse, with the view of informing myself as to the treatment of cattle, I have found no attempt to estimate and distinguish the gain of useful material made by them in the process of fattening. On seeking to explain my views on this subject, I feel less hesitation, as I supply data and figures from which my conclusions are derived, the soundness and correctness of which it is not difficult to estimate and ascertain.

The cattle I prefer for fattening are well-grown heifers, or cows which have had their first calf at three to five years old. The breeds of this district are to a considerable degree Short-horns, the bulls used being more or less of this description; they may be termed of "fair" to "good" quality. Their live weight, when bought in a lean store condition, ranges from 7 cwt. to 9 cwt.; their capability of carrying weight, when prime fat, may be taken at an addition of 3 cwt. Although it is not used to kill beasts in a store state, and little positive information can be gained as to the carcass weight of lean stock, yet, from observation and inquiry, I am disposed to think that this will be no less than one-half of the live weight, probably not more than 43 to 47 per cent. In *Morton's Cyclopedia* treatise "On Meat," the comparison of carcass to live weight is stated as 50 to 55 per cent. when half fat, and as 61 to 63 when prime fat, for cattle of the like quality. I quote this as tending to confirm what I have stated as to the comparative proportions in lean stock.

I will consider, for example, a lean animal weighing 8 cwt., and capable of weighing when prime fat 11 cwt., live weight; when fairly started, and with proper feeding, I should look for a gain of 14 lbs. per week, which in my practice is a moderate average; at this rate it would require 24 weeks to bring it to a state of prime fatness. On comparing the weights when lean and fat—8 cwt. or 64 stones lean, at 45 per cent., will leave 28¾ carcass weight; 11 cwt. or 88 stones fat, at 60 per cent., will leave 52¾ carcass weight. The difference is 24 stones, or 14 lbs. per week, for the 24 weeks, being precisely the gain per week in live weight.

During the progress of feeding there is a gradual increase of interior fat of two descriptions—fixed fat in the loins, commonly called suet, which will vary from 8 lbs. when lean to more than 30 lbs. when fat, this is weighed with the carcass; and loose fat, or tallow, which counts as offal. If we take two beasts of equal live weight, and suppose, on killing, one contains 9 stones of loose fat or tallow, the other only 5 stones; now, though this loose fat counts as offal, it is known that the carcass weight of the animal with the 9 stones of loose fat will be heavier than the one with only 5 stones. A consideration of this matter led me to infer that, with the increase of interior fat, there occurred a displacement of material in the process of evacuation. On inquiry of butchers of experience with whom I deal, they tell me that it is a characteristic of a beast, which "proves" well, to have a little stomach. On looking over the items of offal, they appear capable of little increase or variation in one or the same animal, with the exception of tallow and of the stomach, in the weight of each of which there is a difference of 100 lbs. or upwards. I observe that the writer of the paper from which I have quoted attributes this comparative increase in the carcass weight of fattened beasts to its greater solidity, to hollows being filled up, and protuberances being formed; it seems, however, clear that this would equally affect the live with the carcass weight, and therefore does not satisfactorily explain the matter.

If my premises be correct, it will appear that, besides the gain of carcass weight (which is shown by comparison to be 14 lbs. per week on an animal which gains this in live weight), there is an additional gain of interior loose fat which counts as offal. From observation and inquiry I am led to think, then, that this will not be less on the average than 3 lbs. per week, or, in the 24 weeks, 72 lbs. of loose fat, making together 17 lbs. per week gain of useful and vendable material—a result at varience with the impression I held before I entered upon this inquiry. I may at some future time seek to draw attention to the probable proportion and description of this material gained in the process of fattening.—*Y, in the London Agricultural Gazette.*

The only legitimate strike is the strike of the iron when it is hot.

CHURCH IN THE ROMANESQUE STYLE.

DESIGNS FOR CHURCHES.

We give on the opposite page an engraving of an Independent Chapel, at Boston, England, built in the Romanesque style, which may afford some hints to the committees of some of our religious societies looking about for ideas. The *Horticulturist*, in speaking of this church, says:

"It is different from most churches, in having a spacious basement room on the ground floor, sufficiently elevated to be abundantly lighted and ventilated—in short, as healthful and agreeable as a school-house above ground. This school accommodates 400 boys and girls. The exterior length of the chapel is 62 feet, the width 37 feet 6 inches; the internal length 56 feet 8 inches, the width 32 feet; the height of side walls from pavement, 31 feet; the height of gables, 46 feet; the tower height, 62 feet; the spire and vane, 48 feet—or total, 110 feet.

"This church is built wholly of brick—the moldings of doors, windows, &c., of molded brick. The cost was £1,300 (about $6,500). As molded brick are now admirably made in this country (some fine buildings in this style having been erected with them at Providence, R. I.), this mode of building is worthy the attention of those who desire to unite economy with good effect."

In regard to this style of architecture, the same journal remarks:

"Next to the Gothic style, the Romanesque (or Lombard), appears better adapted than any other to religious edifices. Though there is, in its lines, less of religious aspiration than in the Gothic, yet it is also equally removed from the level plane of reason which we find in the Greek architecture. There is much, both of beauty and balance, in the curved lines of its arches, and it admits the spire almost as naturally as the Gothic style. Besides this, so far as association is worth any thing, it has clearly the advantage of the Gothic style—since the earliest Christian churches were all round arched, or Romanesque.'

SPAYING OF COWS.

This is a subject which it would seem should be better understood than at present. Indeed, the whole subject of comparative physiology lags in regard to the needed progress. A few things, however, are quite certain, among which may be stated the great analogy between the physiological functions of domestic animals and the human race. Although our knowledge in regard to the human race is further advanced than that in regard to animals, yet we may believe that *great* discrepancies have not been found in taking our knowledge of any functions of the human organization as a point of departure, and then making reference to the same functions in animals. Milk-flow, or rather milk-secretion, is a function subsidiary to reproduction with every animal in nature. It is for the sustentation of the young; before their organs of mastication and digestion are sufficiently matured to cope with the coarser diet of the adult. After the milk-secreting organ has been active a sufficient length of time for this purpose—after parturition—it is the law of nature that the particular excitation of this function should be transferred to the starting point of a *new* reproduction still remaining within the generative system. Milk-production is at the expense of the generative energy. The *ovaries* and *uterus* are the first active organs in the process of reproduction; the milk-secreting the subsequent one in connection with the same essential energy. When the milk begins to fail, or the cow to "dry off," this transfer is taking place, though it does not make essential headway until a new reproduction is sufficiently far advanced as to demand in its quarter an active circulation, and the general energies that are being lost in the useless flow of milk.

The proposition, then, is having given a cow in a state of milk to prevent this transfer, by the removal of the ovaries from the animal. One thing among those which are certain is, that there can be no commencement of reproduction after the removal of the ovaries; there can be no intervals of *going dry* any months in the year; if once dry she must be dry for life. Another thing is absolutely certain—that the simple excision of the ovaries from a cow, if performed as it ought to be, is harmless entirely. Some people have a notion that spaying is the excision of the uterus entirely; and worse yet, that it must be done by a large incision through the abdominal walls, in order to get access to them. Few animals could survive such mutilation, although this is believed to be the method by which animals are necessarily operated upon. It is sufficient here to say, that the operation should be performed through the vaginal parietes, as the mode of access. It should be performed during milk-flow, and some time before the anticipated *heat* of the animal. It should be performed only by skillful persons—those who have knowledge of comparative anatomy.

The quality of the milk of a spayed cow is admitted to be superior. The milk of cows far advanced in pregnancy was analyzed by Lassaigne, and found to contain no casein at all, or sugar of milk, or lactic acid, but much albumen and uncombined soda. He analyzed the milk of the same cows after parturition, and found the first three named substances, but no albumen. Physicians have pronounced against the use of the milk for babes taken from the cow in a state of gestation. The spayed animal is more amiably disposed, always kind, and having no season of heat, if kept alone never breaks her enclosure. The writer is assured that she gives a greater quantity of milk, varying with the season, as a matter depending on the season. Those who have fatted these cows for beef, assure us they are fatted quicker, and that the beef is better. As to the length of time they will give milk, Dr. Heckerman has known it to last *ten* years; others have stated it to be seven and eight years. None have pronounced against the operation, or have deemed the animal less valuable if it be preferred to put her in beef in four years. We have only to think of the expense of wintering a dry cow, as an offset to such necessity.—*A., in the Boston Cultivator.*

A band of rascals have been abroad in New Hampshire among the farmers, buying up their cattle at the highest prices, and paying in counterfeit money.

GRASSHOPPER FOOD.

The government of the United States holds its sway over the people of all nations, tribes and tongues, and some of these are strange specimens of the genus *homo*. The natives of many parts of Africa and Asia make fine feasts of roasted locusts; but some of our aborigines are equal to them in this respect, the only difference being that ours use grasshoppers for want of locusts. In that great country—California—there is a tribe of Indians called the "Diggers," whose gastromic tastes are thus described by the *Empire County Argus:*

"There are districts of California, as well as portions of the plains between the Sierra Nevadas and the Rocky Mountains, that literally swam with grasshoppers, and in such astonishing numbers that a man cannot place his foot to the ground, while walking among them, without crushing great numbers. To the Indians they are a delicacy, and are caught and cooked in the following manner: A piece of ground is sought where they most abound, in the center of which an excavation is made, large and deep enough to prevent the insect from hopping out when once in. The entire party of 'Diggers,' old and young, male and female, then surround as much of the adjoining grounds as they can, and each with a green bough in hand, whipping and thrashing on every side, gradually approach the center, driving the insects before them in countless multitudes, till at last all, or nearly all, are secured in the pit. In the meantime, smaller excavations are made, answering the place of ovens, in which fires are kindled and kept till the surrounding earth, for a short distance, becomes sufficiently heated, together with a flat stone large enough to cover the oven. The grasshoppers are now taken in coarse bags, and after being thoroughly soaked in salt water for a few moments, are emptied into the ovens and closed in. Ten or fifteen minutes suffices to roast them, when they are taken out and eaten without further preparation, and with much apparent relish, or, as is sometimes the case, reduced to a powder and made into soup. And having from curiosity tasted, not of the soup but of the roast; if any person could but divest himself of the idea of eating an insect as we do an oyster or shrimp; without any other preparation than simple roasting, they would not be considered very bad eating, even by more refined epicures than the 'Digger' Indians."

Stowell Corn.—The *Ohio Cultivator* gives the following method of treating this corn so as to make it good for winter use, the old mode of trying to keep it green in the husk having generally proved a failure: "Gather the ears when in full milk, and strip off all but a thin covering of husk; lay these in a moderately-heated oven or cooking-stove long enough to scald or stiffen the milk, when the grains are shaved off and kept in a close bag or canister. Boil in the usual way when wanted for use. Thus treated, the corn is said to be very fine."

It is said that small twigs of cedar, chopped fine and mixed with their grain, will cure a cough in horses, and that this has been used with complete success.

Horrors of the Guano Trade.—We have received full confirmation of the horrors reported to be in the course of perpetration in connection with the guano trade at the Chincha Islands. It is picked up and wheeled to the shoots, it appears, by contract. The contractor has imported Chinamen for this work, nearly six hundred of whom are now on these islands. They are hired for five years, at the rate of $48 per annum. They commence work as soon as they can see to work. They have five tons of guano to dig and wheel to a distance of over one-eighth of a mile. It is all, or nearly all, so hard that it has to be picked up; and if they do not accomplish these five tons by 5 o'clock P. M., they are flogged with raw-hide whips, some five feet long, receiving one dozen stripes, each of which starts the blood; then they are driven back to finish their work. The guano has a very bad effect upon them, swelling their legs and arms, and giving them bad sores on their legs, feet and hands. Notwithstanding all these, however, if they can get along they are compelled to finish their task. Our informant says: "I have known as many as thirty flogged in a day. They have no Sunday allowed, with the exception of one in a year, the same work going on on Sunday as during the rest of the week. The consequence of this ill-treatment is suicide in various forms, such as leaping from the rocks one hundred feet high, cutting their throats, and burying themselves alive. This last has actually been the case, to my knowledge. One morning three were found who had so buried themselves; two were dead and one alive. The last recovered to prolong his miserable existence for a short time." It is time that the voice of civilization throughout the world was heard in denunciation of such horrors as these.—*New Orleans Picayune.*

Improving Wheat.—We noticed many fields of wheat in San Jose county that were unusually strong in the straw, and giving great promise of an abundant yield. Upon inquiry, we learned that it was the practice of several of the cultivators to mow their wheat field previous to their jointing, and thus throw back the strength into the roots again, retarding the growth for a time. The result would be a more vigorous straw, a bolder, better head, and at the same time an almost entire eradication of weeds, wild mustard, and other grasses that would injure the crop, besides giving a fine green or dried crop of *two tons per acre.* We saw many fields thus completely clear of foreign substances, which presented quite a different appearance from those not thus treated. We suggest attention to that mode of treatment.—*California Farmer.*

Cattle-feeders in Ohio.—The *Sciota Gazette* gives a list of 64 cattle-feeders in Ross county, who, it says, will averags 100 cattle apiece to the season; and some so far exceed that, that the number annually fatted in that county may safely be set down at 7,000. At present prices they will average fifty dollars apiece, making the good sum of three hundred and fifty thousand dollars annually for the cattle sent from that county!

July and August are the hottest months in the year.

Horticultural Department.

CONDUCTED BY JOSEPH FROST.

HORTICULTURAL EXHIBITIONS, &c., IN CAYUGA AND TOMPKINS COUNTIES.

On the 21st of June the members of the Cayuga County Horticultural Society held an exhibition in Auburn, which we had the pleasure of attending. The operations of this Society are quite in their infancy, as this is the second year of its existence—having been instituted in 1853 by the appointment of Harrison T. Dickinson, Esq., of Auburn, as its President, with the usual number of other officers.

This exhibition was held in a very fine and spacious hall, in the central part of the city, which was beautifully ornamented with varieties of evergreens and flowers. Extending nearly around the room were tiers of shelves, rising one above the other, presenting in the most favorable light the articles upon exhibition. This was protected by a slight guard, formed by small round poles. In the center there was placed a long table, containing the boquets and most of the pot plants; thus making the arrangement quite complete and simple, and evincing good taste.

The articles presented were very choice, and of great variety; and most of the plants showed good culture, which was quite noticeable and deserving of much praise, considering that the Society has been so recently formed.

P. R. Freeoff, a florist and nurseryman, has been able to supply much that has been wanted in that vicinity, by keeping choice and good things. A portion of the citizens manifested much zeal and spirit; but with a large part there was displayed much want of appreciation of that which is good and beautiful, as those in attendance were fewer than we expected to see. The contributions were not only by the people of Auburn and vicinity, but we noticed them from a distance.

Mrs. Henry Morgan, and Dr. A. Thompson, from that charming little spot, Aurora, situated on the east bank of Cayuga Lake, presented some very nice things; the latter contributing a great variety of Roses, Verbenas and Fuchsias, as well as a quantity of well-grown strawberries.

A. Frost & Co., of the Genesee Valley Nurseries, Rochester, had about two hundred varieties of Roses, besides a large collection of Verbenas, and twenty pots of superior herbaceous Calceolarias.

As we were anxious to witness the first show of the Tompkins County Horticultural Society, which was recently organized, we visited Ithaca, at the head of Cayuga Lake, on the 22d of June. The premiums to be awarded were truly grand, which was quite a new feature in exhibitions of this sort. Among flowers and fruit nearly $200 were offered, distributed among thirty-one prizes. There were noticed five prizes at $15 each, one at $10, three at $7 each, and others at a diminished rate. Owing almost wholly to the liberality displayed in the premium list, and not a little to the novelty of the exhibition for the town, the large hall in which it was held was completely packed, so that it was quite difficult to find standing room, without reference to an examination of the articles.

The interest manifested did not abate till late in the evening, when the articles were disposed of at auction. The substantials, as strawberries and cherries, brought good prices, but the flowers were quite behind. The fruits of the season were very abundant, and in great variety upon the tables. The strawberries were as fine as we ever saw; the size and weight of some of the berries and bunches were truly astonishing; but it will be seen that nature has done not a little to aid this.

Mr. James M. Mattison, of Jacksonville, as well as James Welch, gardener to James McLallen, Esq., of Trumansburgh, were awarded some valuable prizes upon articles deserving of much credit. Mr. John Given, gardener to the President of the Society, Herman Camp, Esq., of Trumansburgh, received a good share; a helmet and sash composed of flowers, brought in by him, attracted much attention. An honorable mention was given Mrs. Dr. Thompson, and Mrs. Henry Morgan, of Aurora, for their contributions. The former presented, besides a large collection of Roses, Verbenas, Fuchsias, and other cut flowers, an exquisite basket of flowers, of the most delicate arrangement; but as they were out of the limits, they could not compete.

It is to be hoped that their future displays may not meet with less success than this their first attempt; but to make them interesting, instructive and beneficial to the parties interested, as well as to the whole community, which we believe to be the object of these shows, they must be broad in their application, to include the whole country, and not be confined to the sole operations of a town or hamlet. We were sorry to see that this course was not adopted, but a narrow policy introduced by the management, allowing only those to compete who were residents of the county. We have since been assured that for the future a more liberal plan is to be pursued, which can not fail to insure a better result.

The soil in and around Ithaca has been formed wholly by seven or eight streams, which have brought immense quantities of loam and vegetable earth, in seasons of freshets and at other times, from the hills and rising land about, and deposited it in the valley below, which has made the soil twelve to fifteen feet deep, and accounts somewhat for the large size of strawberries when grown in such soil.

Peach trees seemed not to have suffered any by the curl, and we are assured that they produce large and regular crops.

Strawberries.—At the recent fair of the Genesee Valley Horticultural Society, we were much pleased with the marked improvement of the strawberry, as compared with the exhibitions but a few years since. The mammoth *Alpines, Jennet's Seedlings* and *Pyramidal Chilians* of Mr. Newland, of Palmyra, deserve a notice for the uniformity of size in the appearance of the fruit, and the skill manifested by the intelligent cultivator. We understood Mr. W. to say, that after nine years experimenting he had reduced the growing of the fruit in question to a certainty with that of any crop cultivated; and judging by the specimens exhibited, we are inclined to think the same.

CLEMATIS AZUREA, OR LARGE BLUE-FLOWERED CLEMATIS.

This Clematis, of which a cut is given in this month's issue, we think the finest of the species. It has bloomed on our grounds the past two seasons in the greatest profusion, for nearly two months. Its flowers are very large, being fully six inches in diameter, of a deep blue color, and has from seven to nine petals, making its outline like a star, from the base of which the leaves start. The stamens are curiously formed, very much resembling the Passion flower. It is perfectly hardy, having withstood, unprotected, our severe winters without the least injury. Being a climber, the flowers produce a fine effect, if the plant is allowed to run upon a wire trellis or upright frame-work.

CLEMATIS AZUREA.

MEETING OF THE HORTICULTURAL SOCIETY OF THE VALLEY OF THE GENESEE.

The Summer Exhibition of the Horticultural Society of the Valley of the Genesee, was held at Corinthian Hall, Rochester, on the 24th of June. The following are the Reports of the Committees:

REPORT OF THE COMMITTEE ON FLOWERS AND FLOWERING PLANTS.

The display this season was very creditable to the Society, though not in as great profusion as at some former shows, but the articles exhibited were choice and well grown. Cut flowers from out of doors, particularly Roses, were in great abundance; but they were not in as good condition as they would have been, had not a heavy rain the day before materially injured many of the blooms. Messrs. Ellwanger & Barry contributed a superior collection of Phloxes, Pæonies, and other cut flowers. The display of Roses, embracing 238 varieties, from A. Frost & Co., was very fine.

The following are the awards of premiums:

Amateurs' List.

Roses—best collection, named, J. A. Eastman,	$3.00
2d best " " D. C. Greenleaf, Brockport,	2.00
best 6 varieties, " D. P. Newell,	1.00
Verbenas—best collection, named, D. C. Greeleaf, Brockport,	2.00
Boquets—best table, C. F. Crossman,	2.00
2d best table, D. C. Greenleaf, Brockport,	1.00
best hand, Mrs. M. Jewell,	2.00

Nurserymen's List.

Roses—best collection, Ellwanger & Barry,	Dip.
2d best " Samuel Moulson,	$2.00
best 25 varieties, A. Frost & Co.,	3.00
best 12 " A. Loomis, Byron,	2.00
Verbenas—best collection, named, A. Frost & Co.,	Dip.
best 12 varieties, A. Frost & Co.,	2.00
Boquets—best table, C. J. Ryan & Co.,	2.00
2d best, John Donellan & Nephews,	1.00
best hand, C. J. Ryan & Co.,	2.00
2d best, A. Frost & Co.,	1.00
Floral Ornament—best, A. Frost & Co.,	3.00
Green-house Plants—best collection, A. Frost & Co.,	Dip.
best 12 specimens, Bissell & Hooker,	5.00

J. Frost, Chairman of Com.

REPORT OF THE FRUIT COMMITTEE.

The Committee on Fruits report that the exhibition of strawberries was very fine, though the exhibitors were few in number. The fruit well grown, but the flavor considerably injured by the recent heavy rains.

In the amateur list, no collections were offered worthy a premium.

In the professional list, Ellwanger & Barry exhibited 34 varieties of strawberries, including several seedlings of their own raising.

Bissell & Hooker, 17 varieties, very well grown.

George Newland, of Palmyra, 15 varieties, well grown, and especially the Red Alpines, which were much larger than they are ordinarily grown. He had several varieties not in other collections. Among these the Pyramidal Chilian attracted much attention, both from its size and excellence.

D. Southworth, of Penfield, presented Burr's New Pine, in very fine condition.

Mr. Zera Burr, of Perinton, exhibited 18 varieties of seedling cherries, several of which gave promise of excellence. They are mostly early, and on that account valuable.

Ellwanger & Barry exhibited 16 varieties of early cherries, including Governor Wood, Rockport Bigarreau, Burr's Seedling and Coe's Transparent—fine American sorts.

T. A. Newton sent for exhibition a large number of quart boxes of Burr's New Pine, in beautiful condition.

The following are the premiums awarded:

To Ellwanger & Barry, for best collection of strawberries,	$5.00
Bissell & Hooker, 2d best,	3.00
Geo. Newland, best quart Pyramidal Chilian,	3.00
D. Southworth, 2d best, Burr's New Pine,	2.00
Zera Burr, a gratuity for his seedling cherries,	5.00

H. N. Langworthy, Chairman of Com.

REPORT OF THE VEGETABLE COMMITTEE.

The Committee regret that the show of vegetables was small, and their labors consequently light. The premiums awarded are as follows:

Lettuce—best six heads, D. C. Greenleaf, Brockport,	$2.00
2d best, C. F. Crossman,	1.00
Cucumbers—best six, C. F. Crossman,	1.00
Peas—best peck, D. C. Greenleaf, Brockport,	2.00
2d best, C. F. Crossman,	1.00
Rhubarb—best 12 stalks, John Donellan,	1.00

H. N. Langworthy, Chairman of Com.

DESCRIPTIONS OF NEW PEARS,

CULTIVATED BY M. DE LIRON D'AIRNOLES, AT LA CIVELIERE, NANTES.

Beurre Clairgeau.—Tree remarkably vigorous, and soon forms a handsome pyramid; succeeds well against a wall with a south or an east aspect; bears abundantly, and at an early age. Fruit variable in form, but generally calebasse shaped; a superb fruit, weighing sometimes 20 ounces. It gained the first prize of the Horticultural Society of the Seine, in 1851. Its skin is fine, almost entirely covered with patches of reddish-russet when gathered; but at its maturity, which occurs in November and December, it becomes richly colored with yellow and vermilion. Its flesh is fine, white, melting, very juicy, sugary, and perfumed. Raised by Pierre Clairgeau, a gardener at Nantes.

Beurre de Nantes, or *Nantais.*—Tree vigorous, adapted for a pyramid or for training against a wall; it soon comes into a bearing state. Fruit large, oblong, of the form of the *St. Germain*; skin light green, yellowish when fully ripe. Flesh white, melting, very juicy, and perfumed. Ripens in September. One of the most handsome and delicious of the new pears. It was raised by Francois Maisonneuve, a horticulturist at Nantes.

Beurre Delfosse.—Tree vigorous, suitable for a pyramid or standard. Fruit middle-sized, roundish; skin yellowish-brown, slightly tinged with red next the sun. Flesh white, fine, buttery, and melting; very juicy and sugary, with a delicious, perfumed flavor, somewhat resembling that of the *Passe Colmar*. Becomes fit for use in Belgium in December and January. Raised by M. Gregoire, of Jodoigne, Belgium.

Bergamotte Hambourg.—Tree vigorous, forms a handsome pyramid, and is also adapted for a standard; an abundant bearer. Fruit large, bergamot-shaped, from 3 to 3½ inches in diameter; skin rough, green, changing to citron-yellow when ripe, dotted with brown, and tinged with red next the sun. Flesh white, very fine, somewhat buttery, juice abundant, sugary, perfumed like the *Rousselets* and *Bergamots*. An excellent fruit, ripening, in Belgium, in the first fortnight of October. Raised by M. Bivert.

Duc d'Orleans.—The original tree has a magnificent pyramidal form. The fruit is middle-sized, or tolerably large, obtuse-pyramidal, of a fine golden yellow, profusely sprinkled with reddish-brown, and dark specks; the stalk is slender, woody, and about an inch and a quarter in length. Flesh white, fine, melting, very juicy and sugary, with a vinous perfumed flavor. Season, November and December. Raised by M. Alexander Bivert, and bore for the first time in 1847.

Beurre Six.—Tree vigorous and fertile, but requires to be worked on the Pear stock and grown against a wall. It is not adapted for pyramidal training. Fruit large, pyriform; skin smooth, light green, dotted with deep green and brown. Flesh white, very fine, melting, buttery and sugary, with a delicious perfumed flavor. Its season of maturity is November and December, in Belgium. Raised by M. Six, nurseryman at Courtray.

*Duchesse de Berry.**—This is naturally classed among the Doyennes. In some catalogues it is confounded with the *Doyenne d'Ete*, from which, however, it is very different. The tree is vigorous and very productive. The fruit is middle-sized, somewhat larger than the *Doyenne d'Ete* or *Doyenne de Julliet*. Skin smooth, pale green, dotted with brown. Stalk short and thick. Flesh white, crisp, juicy and sugary. Ripens at Nantes between the 15th of August and the 15th of September. This variety was discovered by M. Bruneau, nurseryman at Nantes. Among a number of seedling trees at a place called the Barriere de Fer, commune de Saint Herblain, he observed two trees, the fruits of which appeared to possess merit; to one of them he gave the name of *Duchesse de Berry*, and to the other that of *Saint Herblain d'Hiver*, and introduced them into his nursery in 1827.

Saint Herblain d'Hiver.—The tree does not succeed well on the Quince stock, but on the Pear stock it is tolerably vigorous, and is suitable for standards or pyramids. The fruit bears considerable resemblance to the *Easter Beurre*, from which it has probably been raised, and at first sight might be mistaken for it. It is of medium size, or rather small when the tree is heavily loaded. Skin smooth, green, sprinkled with small brown dots. Stalk short, deep brown. Flesh fine, white, juicy and sugary. Although the tree is not so vigorous as many others, yet it appears deserving of cultivation, as the fruit keeps till late in the season.

Marie Anne de Nancy.—Tree moderately vigorous, and likely to prove a good bearer. Fruit middle-sized, turbinate, about nine inches in circumference. Skin smooth, green, streaked and speckled with russet, becoming yellowish when fit for use. Stalk scarcely half an inch in length, clear brown, thick and fleshy. Flesh white, very melting and buttery, with an abundance of sugary vinous juice. Ripe in September and October. From seed by Van Mons.

Doctor Trousseau.—The tree bore for the first time in 1848. It is entirely destitute of thorns, which is rarely the case with Pear trees that have recently been raised from seed. Fruit large, pyriform, broad near the eye and contracted near the stalk. It is four inches in height and three inches in diameter. The stalk is strong and woody, about an inch in length, sunk at its insertion. Skin green, spotted with red and sprinkled with gray dots. Flesh fine, white, melting, buttery, with abundance of sugary, perfumed juice. Ripe in November and December. Raised by M. Alexander Bivert.—*London Gardeners' Chronicle.*

* This should be called *Duchesse de Berry d'Ete*, to distinguish it from another pear lately sold under the name of *Duchesse de Berry*, and which has proved to be the *Uvedale St. Germain.*

THE APPLE ORCHARDS.

Much of late years has been written and said about apple orchards and their cultivation. On most all farms of any extent in the Eastern or Northern States, there are more or less of old apple orchards. These, for the most part, have been left to grow up and take care of themselves, which, in the long run, amounts to just no care at all. The consequence has been that they have become by this neglect unthrifty, scrubby trees, full of dead limbs, the trunk and limbs covered with moss and rough bark, presenting an unsightly appearance; and in eight or ten years, the farmer, in early spring, would mount the trees, axe in hand, and cut and slash off large limbs and small, leaving the spurs sticking out from three to six inches long from the trunk, while the tree would be so much relieved from wood that it would take it ten years to get back to where it was at the time of pruning—so that, in the long run, we think the "let alone system" much preferable to the ten years' trimming plan, although both plans are what every good reasonable farmer should be ashamed of.

Now what these old orchards want, is a thorough renovation in the shortest possible time. The first thing to be done is to cut off the old top of the growing trees, and set on a new one by grafting. This can be done best by the common mode of "cleft grafting." Those limbs that are the size of a "hoe-handle," or an inch and a half in diameter, should be selected, as they soon heal over, making the limb sound. The "grafter" should commence on the top of the tree to saw off the limbs, and so work down, taking care to graft every tier of under limbs at a longer distance from the trunk, so that the grafts will have plenty of room to grow and not interfere with each other. To have this work done in a business-like manner requires three hands—one to saw off the limbs and pare the stocks; another to set the scions, two in a stock; and the third hand to put on the wax. All old trees that have a good sound trunk, however many dead limbs they may have, should be sawed and grafted. But many old trees require different management. Some, by bad pruning, have grown their old tops up very high. To graft these old tops at such a distance up would be a difficult job; at the same time they would make an unsightly appearance in growing. Such trees should be "headed down"—that is, the large limbs sawed off at such distance down the tree, that when the new shoots put out they may form a handsome top. These sprouts, if they are of thrifty growth, may be grafted the second season, or "budded," as the case may be. Old, large trees of slow growth should not, in all cases, have their whole top taken off at once, as the shock might kill them. But in these cases the south half of the tree might be taken off first; then, say in two years after, the north half could be treated in the same way, and the tree saved. As to the time of pruning Apple trees, it may be done any time from May to October; but it should be done regularly every year, and then only small limbs will be taken off; but in the case of old, neglected orchards, more or less of large limbs must be removed. About all the tools wanted are a sharp hand-saw, a fine pruning-saw, and a pruning-knife. It will be well to have the large

wounds covered by a composition of gum shellac, dissolved in alcohol to the consistency of paint, and put on with a brush. This, I think, is as cheap and as good a composition as can be had for closing the pores of the wood — also protecting it from the weather. The best grafting wax I have ever used is that made of four parts of rosin, two of beeswax, and one of tallow, melted together, and kept in an iron kettle. In an ordinary sunny day, the kettle, standing in the sun, will gather sufficient heat to keep the wax in good working order. This wax will not melt in the hottest weather; neither will it crack and come off in the coldest weather; but it will remain on the stock two or three years, or until it is entirely healed over. Another thing which should be done at the time of pruning is, the trees should be scraped entirely of moss and rough bark, by a "tree-scraper." This can be done best directly after a heavy storm, as the bark and moss then will be in the right condition to come off. After this cleaning, a wash, made from wood-ash lye or potash water, should be put on the trunks and large limbs, which will kill all insects and larvæ, giving to the bark a smooth appearance. The "scrapers" may be had at any of the implement stores at a cheap rate.

If I were to advise whether to plant a new orchard or renovate an old one, I should say, renovate the old one first, by all means, because your labor can be made to pay a great deal quicker on the old orchard than on the new. In from three to four years' time your newly-grafted trees will begin to bear, and so continue to increase from year to year, while at the same time you have made a handsome improvement on the stock of your orchard. Old orchards that are kept permanently in grass should have the soil dug up around the trees every season; and if done as far as the branches extend, it will be all the better. Manure should be dug into the soil occasionally, as the case requires. Where orchards are near the "pigery," it is a good plan to let the swine have the run of the orchard through the warm season, as they will eat and destroy most of the "windfalls" under the trees, and also keep the soil stirred up in search of worms, &c. Much is being done, at present, by farmers and cultivators, in setting out young orchards. This is a commendable work, and shows that the right spirit is at work among our farmers. But the setting out of a young orchard, and then letting the trees take care of themselves, is a "loose business," which too many cultivators still follow to their own loss.

The soil in an orchard should be kept under cultivation the whole time, until the trees shade the ground so much that it will not be profitable for hoed crops or grain. As to the distance apart the trees should stand, it will depend something on the trees planted. My observation tells me that, as a general thing, apple orchards are set too close on the ground. The trees should be set at such distance apart that the trunks will grow to at least eighteen inches in diameter before the branches approach each other. Some six or seven years ago I set out a young orchard of *Baldwins*, at a distance of forty feet one way by thirty the other; and when the trunks reach the size of a foot and a half, I think that the ground will be nearly covered. An orchard of *Rhode Island Greenings* should be set at least forty feet each way, as this tree opens more like the umbrella in shape; the branches extending out horizontally from the trunk, it covers a large surface. There is nothing to be gained by crowding trees so that the branches will come together when the trees are eight or ten inches in diameter at the trunk; but much is lost in this way. The trees should have room to extend their branches, should the orchard live and thrive for an age or a century to come. The quality of fruit is much better, also, when the trees have plenty of room and sunlight to mature it.

One word as to the over-supply of good fruit for market, which some cultivators seem to apprehend from the great attention given to this business. I have no idea that the supply will equal or exceed the demand for good fruit in this country in the next fifty years to come. Of course, prices will vary according to the amount of fruit grown in a season, and other circumstances connected with the business; but good fruit of all kinds will always bring a remunerating price to the careful and patient cultivator; and then we look for the cultivation of hardy kinds of apples for the "foreign trade," to become a business hereafter of which we know but little at present. Something has been done in this way already; but that a great deal more will be done in the next half century, and that, too, at a large profit, we have no reason to doubt at present. Farmers and cultivators will continue to make all the improvements they can, both in their apple and other fruit orchards. —*L. Durand, in the Horticulturist.*

THE RANUNCULUS.

The Ranunculus is admitted to be the *ne plus ultra* of floral perfection, and yet it is a singular fact that its culture is all but neglected by florists in general. Let us hope, however, that its present limited cultivation may soon be extended, and that all may become more familiar with its appearance. Few flowers can be grown in so limited a space and with so small an annual cost; and when in bloom, what surpasses it in beauty! Among southern growers, Messrs. Tyso, Costar, Airzee, Reeves and Hook stand prominent; but these are not enough, and our midland florists seem to be quite as neglectful of its culture as our metropolitan friends.

I trust that these remarks may be the means of inducing a few new growers to enter the field; and with a view to accelerate this desideratum, I venture to point out to the uninitiated the best modes of cultivation, and which are to be found in Tyso's little treatise on this flower. I have carried out the following instructions as to soil, formation of beds, and planting, fully, and with such excellent success that I feel convinced the drawing attention to them here will be doing a real service: "The foundation of all good culture is the adaptation of the compost to the natural habitats of the plant. Experience teaches that the Ranunculus delights in a rich hazelly loam. If, therefore, the natural soil of the garden be unfavorable, procure the top spit of a pasture, of rather heavy and tenacious but not clayey qualities, with the turf, and lay it on a ridge some months, and turn it two or three times before use. To give precise

and accurate directions in print for selecting a soil is difficult; but it is deserving of remark, that a pasture abounding with and luxuriantly sustaining the British varieties of Ranunculuses, or Butter-cups, as they are usually called, has also been found congenial to the Asiatic species. The addition of fertilizing agents to maiden soil is of paramount importance. Many composts have been recommended to the amateur, the proportionate ingredients of which have been prescribed with the precision of a physician's formula. The secret of vigorous foliage and enormous blooms has been a mixture of powerful chemical stimulents, or a substratum of cow-dung a foot thick, or some other equally unnatural process. Our advice is to avoid quackery. Many valuable collections have been ruined by excessive applications of suitable manures, or the use of such as are destructive rather than nutritive. Decayed stable and cow-dung, in equal quantities, constituting together about one-third, added to two-thirds of loam, will, when mixed and thoroughly incorporated, form a compost for the main depth of the bed; reserving a portion of loam sufficient to make a top layer of soil 2 inches deep, to which about half the above-stated proportions of well-decomposed manure may be added. It is of importance that the tubers should not be placed in contact with fresh manure, as it engenders disease in the roots, and consequent injury to the plants. Having chosen an open but not exposed part of the garden, which will admit of the beds being laid down about east and west, remove the earth a foot deep, and from 3 feet to 3 feet 4 inches wide, and fill the bed with the prepared compost to within 2 inches of the surface; leave it thus a month, and then add the reserved top soil. These operations are best done in autumn, that time may be allowed for the earth to settle. The surface of the beds should be level, and not more than an inch higher than the paths, in order that the roots may be kept regularly cool and moist; and as the Ranunculus thrives on a firm bottom, the compost should not be disturbed at the time of planting, more than is just needful for that operation. During winter the surface may be pointed up rough to take the benefit of frosts, but in no case should this be done more than 2 inches deep. The beds may be neatly edged with inch boards painted lead color; and in case named sorts are planted, should be numbered with white paint to correspond with the numbers entered in the amateur's list. As a bed well constructed at the commencement will admit of several successive plantings, with an annual addition of fertilizing materials, it is worthy of the particular care of the cultivator, though the preparation at first may involve some little trouble and expense. The best season for general planting is the last fortnight in February—the plants have not then to contend with the severities of the winter. In some favorable seasons roots may be planted with advantage in October; they will have more time to vegetate and establish themselves—will make stronger plants, and will bloom more vigorously, and about a fortnight earlier than if planted in spring. Considerable hazard, however, attends autumn planting, and it is not recommended, except by way of experiment to those who possess a large stock and can afford to risk a portion. In fine weather, toward the close of February, rake your beds perfectly level, and divide them into six longitudinal rows for mixed roots, allowing 4 inches from the outside row to the edge; or for named sorts, mark your rows transversely at distances of 5 inches asunder, and plant six roots in a transverse row. Draw drills one inch and a half deep, and plant the roots with the claws downward, with a gentle pressure to secure them in the soil, so as to be one inch and a half from the crowns to the surface. When planting on a small scale, a dibble with a shoulder at the precise depth may be used, but in large quantities it is an inconvenient method; and planting at the bottom of a drill with slight pressure, and without disturbing the subsoil, is attended with similar advantages to the use of a dibble, and in practice will be found to have some points of preference. If the top soil is light after planting. it may be gently beaten with the back of the spade; this operation, however, must be only done in dry weather."—*C., in the London Gardeners' Chronicle.*

KILMARNOCK WEEPING WILLOW.

This beautiful weeping plant having lately attracted attention, its history may not be uninteresting. There lived, in a sequestered corner of Monkwood estate, near Ayr, an aged botanist named John Smith, an enthusiastic lover of plants, and a zealous collector. From him Mr. Lang, nurseryman, Kilmarnock, purchased one plant, about ten years ago. Afterwards Mr. Lang procured a few more plants from Mr. Smith; and as the old gentleman died shortly after, he never had an opportunity of ascertaining where he procured the variety. It is probable, however, that he found it growing wild, as the species, Salix caprea or Palm Willow, is one of the most common plants in the country. Mr. Lang has since been engaged in propagating the plant, and nearly 1000 have been sold. Sir W. J. Hooker received two plants of it in spring, 1852, and having observed during last summer how exceedingly ornamental it was, he gave Mr. Lang a decided opinion, stating that he thought very highly of it, and that it was much admired in the Royal Gardens at Kew. The tree flowers freely in the month of April, has broad glossy leaves, every branch is curved gracefully downward, and it is as hardy as the most hardy plant we have, being in fact a native of the country, and not, like the Salix Babylonica, introduced from a foreign clime. The name of Kilmarnock Weeping Willow was bestowed upon it to distinguish it from the common Weeping Willow, the Napoleon Weeping Willow, and the American Weeping Willow; it is quite distinct from either of these varieties, having leaves two inches broad.—*Kilmarnock Journal.*

Second Crop of Strawberries.—Prof. Page exhibited on Tuesday, at the Patent Office, some fine specimens of a second crop of strawberries, produced according to Mr. Peabody's method of continuous waterings. This variety was the favorite strawberry known as the *Alice Maud.* This is a complete verification of Mr. Peabody's discovery of making strawberries constant bearers by constant waterings.

Ladies' Department.

MODES OF PREPARING THE PEACH.

A writer in the *New York Times* publishes a long account of the peach—its uses, and the manner of preparing and preserving it. He concludes his article with the following recipes, which we commend to our female readers, if they observe any thing new in them, to keep until the proper time arrives to test their application:

Peaches in Brandy.—Wipe, weigh, and carefully select the fruit, and have ready a quarter of the weight of powdered white sugar; put the fruit into a vessel that shuts closely, throw the sugar over it, and then cover the fruit with brandy; between the top and cover of the pot put a piece of double cap paper; set the pot into a saucepan of water till the brandy is quite hot, but not boiling; put the fruit into a jar and pour brandy upon it, and when cold put a bladder over, and tie it down tightly.

Pickled Peaches.—Take a gallon of good vinegar, add a few pounds of sugar, boil it for a few minutes, and remove any scum that rises; then take clingstone peaches that are fully ripe, rub them with a flannel cloth to get off the down upon them, and stick three or four cloves in each; put them into a glass or earthern vessel, and pour the liquor upon them boiling hot; cover them up, and let them stand in a cool place for a week or ten days; then pour off the liquor and boil it as before, after which return it boiling to the peaches, which should be carefully covered up and stored away for future use.

Peach Preserve.—Take enough clarified sugar to cover the fruit, boil it till the syrup blubbers on the opposite side of the skimmer, and then put in the fruit and let it boil lively two minutes; remove the same; let it stand from the fire till the next day; then take out the fruit, boil the syrup again, and as soon as the fruit boils take them from the fire, and when cold put into jars and keep free from heat or moisture.

Peach Jam.—Gather the fruit when ripe, peel and stone them, put them into the pan, and mash them over the fire till hot; rub them through a sieve, and to each pound of pulp add a pound of white sugar and half an ounce of bitter almonds, blanched and pounded; let it boil ten or fifteen minutes; stir and skim it well.

Peach Jelly.—Take feeestones, not too ripe, wipe them, and cut into small quarters; crack the stones and break the kernels small; put the peaches and kernels into a covered jar, set them in boiling water, and let them do till soft; strain them through a jelly bag till the juice is squeezed out; allow a pint of white sugar to a pint of juice; put the sugar and juice into a preserving kettle, and boil them twenty minutes, skimming very carefully; put the warm jelly into glasses or jars, and when cold tie up with brandied papers.

Peach Wine.—Take nearly ripe fruit, stone it, and bruise the pulp to one quart of water, and let it stand twenty-four hours; then squeeze out the juice, and to every gallon of it add two pounds of white sugar; then put it into a cask, and when it has fermented and become perfectly clear, bottle it up and use at pleasure.

CHEESE-MAKING.

Noticing A Vermont Farmer's Wife's desire to obtain information in regard to cheese-making, and having had some experience in that line, I venture to state the method which I have used. In very warm weather, I let the milk stand in the pails and cool a little before straining into the tub, care being taken to keep it perfectly sweet, as souring will cause the cheese to be huffy or hard. It should stand at least one hour after turning, before breaking up; and after this is done, it should stand an hour longer before dipping out to drain. Some let it stand in the tubs over night, but I think it more apt to sour; extract the whey as much as possible. The morning's milk is prepared in the same manner; slice both curds in the tub to scald together. Take two-thirds boiling water, one-third cold; stir with the hand very carefully while pouring in the water. Use water enough to make the curd as warm as new milk. Let it stand fifteen or twenty minutes, and when drained slice it up to cool before chopping; use one ounce salt to three pounds curd. Pressing should be very light for the first three hours, and increase gradually. A cheese put into the press about noon may be turned the next morning, and taken out the next after. After the rennet is prepared. it should be kept from the air, or it will lose strength. This is the manner in which I have treated my cheese, and have had good success. Should the young wife hear of no better method, she can try the same.—*M. W., in the Boston Cultivator.*

The Home of Taste,—How easy it is to be neat! to be clean! How easy it is to arrange the rooms with the most graceful propriety! How easy it is to invest our houses with the truest elegance! Elegance resides not with the upholsterer or the draper; it is not put up with the hangings and curtains; it is not in the mosaics, the carpeting, the rosewood, the mahogany, the candelabras, or the marble ornaments; it exists in the spirit presiding over the chambers of the dwelling. Contentment must always be most graceful; it sheds serenity over the scene of abode; it transforms a waste into a garden. The home lightened by these, imitations of a nobler and brighter life may be wanting in much which the discontented desire, but to its inhabitants it will be a place far out-vying the oriental in brilliancy and glory.

The following "epigram," which we find in an exchange, was evidently written by some poor, forlorn bachelor:

When Eve brought *woe* to all mankind,
Old Adam called her *woe-man*;
But when she *woo'd* with love so kind,
He then pronounced it *woo-man*.
But now with folly and with pride,
Their husband's pockets trimming,
The ladies are so full of *whims*,
The people call them *whim-en*.

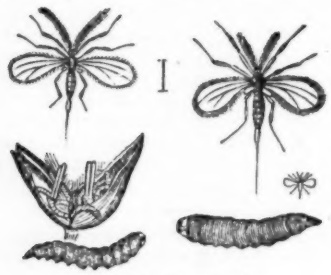
Editor's Table.

AGENCY IN NEW YORK.—C. M. SAXTON, Agricultural Book Publisher, No. 152 Fulton street, New York, is agent for the GENESEE FARMER, and subscribers in that city who apply to him can have their papers delivered regularly at their houses.

AGENCY IN CINCINNATI.—R. POST, No. 10 West Third street, Cincinnati, is agent for the GENESEE FARMER, and subscribers in that city who apply to him can have their papers delivered regularly at their houses.

THE WHEAT FLY, OR "WEEVIL."—This insect has caused great alarm in Western New York within the last six weeks; nor are we able to indicate the probable extent of the injury done to the staple crop of our enterprising farmers. The damage, however, is so large that many will abstain from wheat-culture for a few years, until the pest shall have passed by. In a recent visit to Cayuga county, where the fly has prevailed longer than it has in the Genesee valley, we found the brown Mediterranean wheat nearly exempt from the attacks of this depredator, while the different varieties of white wheat were nearly destroyed. Plump Mediterranean weighs some four or five pounds more per bushel than either the white flint, blue stem, or Soule's wheat, and the flour of the former is "stronger"—that is, it will imbibe per 100 pounds more water, and yield more bread than the flour of white wheat—and therefore bakers in cities, who sell bread by weight, like it. It has, however, a thick, hard bran, and the flour is comparatively dark colored. It is better than no wheat, but farmers in this region will reluctantly engage in its cultivation. KOLLAR thus describes the wheat midge:

"*The Wheat Midge, or Weevil.* (*Tipula tritici*, Kirby. *Cecidomyia tritici*, Latreille.)—When wheat is in blossom, it is sometimes attacked by a small fly of an orange-yellow color, which lays its eggs by means of a long retractile ovipositor in the middle of the blossom. When the eggs are hatched, the larvæ prevent the fructification of the grains, probably by eating the pollen, and thus frequently destroy some part of the harvest. The perfect insect has a distant resemblance to the common midge, but is smaller, being scarcely a line [one-twelfth of an inch] long. The body is an orange-yellow, the wings clear and transparent like water, and hairy at the edges; the eyes are black, the antennæ necklace-shaped, longer than the thorax, and the feet rather long.



CECIDOMYIA TRITICI.

"The larvæ jump on being touched; they have no feet, are of a citron color, wrinkled or warty at the side edges; the head terminates in a point, and the posterior end is truncated. The pupa is slender, pointed at both ends, and of a reddish color.

"The extraordinary smallness of this insect, both in its larva and perfect state, with the circumstance that the destruction of the wheat takes place when it is in blossom, and that not all the ears on one and the same field are attacked, allows of but little that can be effected by human aid against this enemy of grain. The safest and almost only certain means of diminishing such an evil for the next year, consists in not sowing wheat again on the same field, nor in its neighborhood; for in all probability the pupæ lie in the earth,* and will only become flies next year at the season when the wheat is in blossom."

CATTLE FROM TEXAS.—Mr. JAMES GILCHRIST, of Fanning county, Texas, lately delivered and sold 130 head of fat cattle in the city of New York. This drove started in April, 1853, and consumed four months in reaching Illinois, where they wintered, and were then driven to Marius, Ind., and thence by cars to Cleveland, Erie, Dunkirk, and by the way of the Erie road. This made about 1500 miles on foot, and 600 miles on the railroad. The expense from Texas to Illinois was about $2 a head, the owners camping out all the way. From Illinois to New York, the expense was $17 a head. The drove came 500 miles through the Indian country; the owners purchased a part from the Choctaws. Part of the route was through the Kansas Territory.

The top of the drove, says the *New York Tribune*, are good quality of beef, and all are fair. A lot of twenty-one, short 8 cwt., sold to WEEKS at $30, and a good many others sold at 18c. These cattle are generally 5, 6 and 7 years old, rather long-legged, though fine-horned, with long taper horns, and something of a wild look. Some of them are the descendants of a most excellent breed of cattle for the South, originally imported by the Spaniards and generally known in all the South-western States as Spanish cattle. It is said that the meat of this description of cattle is fine-grained and close, somewhat like venison, and apt to be a little tough cooked in the ordinary way, and therefore not so good to eat fresh as that of cattle of a more domestic character. This will be somewhat changed by purchasing them young and feeding them two years as well as this drove has been fed one year.

The owners are two young men, who are entitled to considerable praise for their enterprise, as well as bringing the first drove of cattle from Texas to the New York market. They first earned the money to purchase, and have done nearly all the work themselves, and will make a handsome thing of the enterprise.

THE PRACTICAL MECHANIC'S JOURNAL.—For solid learning and science in illustration of the mechanic arts, probably no other work excels the *Practical Mechanic's Journal*, which is got up at no inconsiderable expense in England, and republished, with an "American Department," by STRINGER & TOWNSEND, New York. It is really cheap at $3 a year to any one who has a taste to study the principles of Mechanical Science. Civil Engineering receives much attention, while no branch of mechanics appears to be overlooked.

* According to M. GORRIE (*Magazine of Natural History*), all the larvæ have quitted the ears of wheat and descended to the earth by the first of August, going into the ground to about the depth of half an inch, where it is probable they pass the winter in the pupa state.

MR. EDITOR:—I herewith send you a sample of currant wine, made a year ago, in accordance with the recipe annexed. If deemed worthy of note, it is at your service:

Select good ripe currants, and bruise them thoroughly; strain the juice through a close bag; to a quart of juice add two quarts of water and three pounds of common brown sugar; let the cask or keg be thoroughly clean, and fill it full; have a sufficient quantity of liquid to replace as the fermentation proceeds; and when the scum ceases to rise bung the cask firmly, and in a few months you will have very pleasant, refreshing *native* wine.

JULY, 1854.

The currant wine received with the above note is a capital beverage for this hot weather, when properly diluted with cold water. Sweet black cherries make an excellent wine; and the business is capable of indefinite extension.

SALE OF HORSES IN NEW YORK.—A sale of valuable horses recently took place at the "New York Tattersall's," in Sixth avenue. Nearly a thousand persons were in attendance, and the bidding was active. From twelve to fifteen horses were up during the early part of the sale, and were bid off at prices varying from $200 to $250. The main interest that attached to the sale was the announcement that the celebrated trotters, *Mac*, *Tacony*, *Frank Forrester* and *Barnum*, would be sold under the hammer. *Mac* was struck off at $4,100, to Mr. MANN, of Baltimore; *Tacony* was sold for $3,700, to Mr. J. G. BEVENS, of New York; *Frank Forrester* was sold to Mr. MANN also, who paid $2,350. *Barnum* was withdrawn from the auction, he having been sold at private sale during the morning for the sum of $2,850.

SHEEP FROM OHIO IN ILLINOIS.—A couple of our acquaintances, residing in Cadiz, Ohio, purchased last February a year ago, 5000 sheep in that vicinity, for $3 per head. They sheared them, and sold the wool at fifty-seven cents per pound—or $1.75 per fleece. This left the sheep at $1.25. These they drove to near Springfield, Illinois, where they summered them on cheap pasture, and corn that cost them about seven cents per bushel, and hay in the same proportion. They lost but few by death, and this spring, in addition to their old flock, they will have 2,000 lambs; and their crop is almost as near market at Springfield as though it were in Cleveland or Boston. It is easy to figure up the profits of such a business, and they are sure for years to come.—*Ohio Farmer.*

The above looks well on paper—all but the purchase of corn near Springfield at "seven cents a bushel." Illinois ought to be a great wool-growing State, and we trust that it soon will be.

THE CASHMERE GOAT.—The *Philadelphia Ledger* says: "We have heard a great many guesses and opinions whether the goat that produces the fine hair, out of which are manufactured the justly-celebrated Cashmere shawls, can be propagated in this country; and we are happy to announce to our countrymen that it can be done. A friend has deposited with us, for a short time, three specimens of this hair—one of a buck, one of a ewe, and the third of a kid, nine months old, all of the pure breed, which are now being bred and are in a thriving condition in the western part of the State of Georgia."

GOD never designed this world for our home; it is only the place where we are educated for eternity.

A NEW USEFUL METAL.—The existence of the metal aluminum, the base of alumina, has been long known. M. WOHLER obtained aluminum in the state of powder, by treating the chloride of aluminum with potassium. M. H. ST. CLAIRE DEVILLE, of the Normal School of Paris, has been conducted, by a careful study of this body, to the discovery of a process, comparatively simple, by which this metal may be obtained. If a mass, composed of the chloride of aluminum, and some metal, is taken and heated in a porcelain crucible to a bright redness, the chloride is decomposed, and there remains a saline mass, in the middle of which globules of perfectly pure aluminum are stated to be found. This metal is as white as silver, and in the highest degree malleable and ductile. It is completely unalterable in either dry or moist air, retaining its brilliancy under conditions in which zinc and tin tarnish. It is quite unaffected by sulphurated hydrogen gas. Cold water has no action on it, and it remains untarnished in boiling water. Several of the acids only attack it with difficulty, but it is readily dissolved in hydrochloric acid, forming a sesquichloride of aluminum. The specific gravity of this metal is stated to be 2.56; therefore it is not heavier than glass. This metal, existing most abundantly in nature, every argillaceous compound containing it, must become of remarkable value in the arts.

THE POETRY OF PHYSIC.—Doses have always been associated in our minds with wry faces, and medicine has seemed, from the days of childhood, another word for nausea and disgust. Its remedies are the worst part of sickness, and pain was not so hard to bear as the revolting potions we were compelled to swallow for its relief. Dr. AYER'S preparations herald another era. His Cherry Pectoral is like honey on the tongue, and healing balm on the stomach. His Pills! Try them—they are sweet morsels to the taste, and glide sugar-shod over the palate, but their energy, although wrapped up, is there, and strikes with telling force to the very foundation of disease.—*Cincinnati Citizen.*

ENGLISH REVIEWS AND BLACKWOOD'S MAGAZINE.—We have frequently commended these valuable periodicals, which command the best talent in the British empire; and we now allude to them merely to call attention to the fact that the *London*, *Edinburgh* and *Westminster Reviews*, and *Blackwood*, commence new volumes in July, so that the present is a favorable time to subscribe for any of these standard works. The *North British* begins a new volume in May. The postage on the four *Reviews* and *Blackwood* is only 80 cents a year, viz.: 14 cents on each *Review*, and 24 on *Blackwood*. Price of the whole, $10 a year.

SHEEP-RAISING IN ILLINOIS.—A single family in Sangamon county, says the *Register*, have seventeen thousand sheep, and all of good blood. The yield of wool is larger than the finest in Ohio. It is a fact that there is no better country on earth for wool-growing than Illinois. Every farmer who has tried the business has amassed a fortune at it. The expenses are less, and the profits three times larger than in any other State in the Union.

STATE FAIRS FOR 1854.

Illinois, at Springfield,	Sept.	12 to 15
Vermont, at Brattleborough,	"	13 to 15
Ohio, at Newark,	"	19 to 22
Michigan, at Detroit	"	26 to 29
Pennsylvania,	"	27 to 29
Missouri, at Boonville,	Oct.	2 to 6
New York, at New York city,	"	3 to 6
New Hampshire,	"	3 to 6
Maryland, at Baltimore,	"	3 to 6
Indiana, at Madison,	"	4 to 7
Wisconsin, at Watertown,	"	4 to 7
Connecticut, at New Haven,	"	10 to 13
Georgia, at Augusta,	"	23 to 28
Iowa, at Fairfield,	"	25
Lower Canada, at Quebec,	Sept.	12 to 15
Springfield Cattle Show, Ohio,	Oct.	25 to 27

CHARITY is the affection of good, and faith the affection of truth.

PLEASURE, like an over-fed lamp, is extinguished by the excess of its own aliment.

Inquiries and Answers.

As I stand in need of important information in agricultural matters, and as I do not know where else to get it, I have determined "to seek where it can be found." I want to know whether or not there is any method of reclaiming what we call "post oak glade," which is a kind of wet land, of a whitish or ashy color, most of the growth being post Oak, with a few scattering Pines. Such lands are apt to bake after heavy rains; they never seem mellow and loose like the lands adjoining. Some of these glades have sand in them, and some do not. I also want to know whether such lands will grow grass, either for grazing or for the purpose of making hay; and if they will, what kinds suit best, and the mode of treatmeat. Our common woods grass grows finely on such lands, where it is not drowned out by the water standing on it. I am a novice in farming, this being my first year; and as I have no experience of my own I want that of others, so please inform me for what amount you can send me the first eleven volumes of your excellent paper, postage paid. It is a paper that, I think, ought to be read by every farmer. I have several other subjects that I want information on, but will defer it until some future time. A SUBSCRIBER.—*Clinton, Texas.*

Wet post oak land is generally better adapted to grass than any other crop, but usually needs some artificial provision for the removal of surface water. Where there is an outfall, ditching is the proper remedy. The excess of water being disposed of, the due amendment of the soil comes next in order. The soil is usually a tenacious clay, which, when cultivated, is much inclined to run together, and soon bake into a solid mass, instead of remaining friable and pulverulent. Lime tends to counteract this evil, and will generally improve the land for the growth of grass and grain. The cost of lime and the natural wants of the soil must regulate the amount to be applied per acre. In a limestone region, where spring water is calcareous, liming may not be necessary. In such districts, which are not uncommon in some parts of Michigan, the kind of land referred to by our Texas correspondent makes excellent meadows; but in the granitic and freestone districts in the Southern Atlantic States, marling or liming is almost indispensable to render the land worth cultivation. Wherever much water evaporates, it is apt to leave poisonous salts, or acids, or both, behind, to injure the growth of nutritious grasses, either for pasture or meadow. Drainage washes away most of these; but very compact clay often retains too much for the good of the soil, and marling will correct the acidity, and render the land more friable, and open it to the meliorating influences of solar light and heat, and atmospheric gases.

Experienced stock-growers and planters in Texas will inform our friend what grasses he had best produce. It is doubtful whether any Northern variety will succeed so well as some of the indigenous grasses of the South. Any Southern reader will confer a favor on the GENESEE FARMER by describing in a letter the kinds of grass best adapted to grazing and mowing in the Gulf States.

We cannot furnish the first eleven volumes of the FARMER.

HORTICULTURAL.

I would be glad if you would inform me what would be the most suitable hedge plant for a garden, where it is desirable to take up as little space as possible. I see Privet is called an evergreen in an English work, but not in a Rochester nursery catalogue. Are there two kinds? JOHN WILKES.—*Terre Haute, Ind.*

You have not stated whether you wish the hedge as an ornamental one for the lines of your garden, or as a thief-proof protection to its fruits. As an ornamental hedge, the Privet answers very well, and presents a very pretty appearance when properly trimmed; as a protective hedge against marauders, we know of nothing equal to the Osage Orange. There are two kinds of Privet, one of which retains its foliage nearly all winter.

ADVERTISEMENTS,

To secure insertion in the FARMER, must be received as early as the 10th of the previous month, and be of such a character as to be of interest to farmers. TERMS—Two Dollars for every hundred words, each insertion, PAID IN ADVANCE.

SEED WHEAT AND RYE WANTED.

THOSE having superior kinds of the above, will please address the subscriber with samples and prices. R. L. ALLEN,
July 1, 1854.—2t 189 and 191 Water st., New York.

CUTTER RIGHTS FOR SALE

WE will test our Hay, Stalk and Straw Cutter, patented November 8th, 1853, for speed, ease and durability, against any other in the United States. J. JONES & A. LYLE.
☞ For further information, address JONES & LYLE, Rochester, N. Y. February 1, 1854.—tf

GENESEE VALLEY NURSERIES.

A. FROST & CO. ROCHESTER, N. Y.,

OFFER to the public the coming spring one of the largest and finest stocks of Fruit and Ornamental Trees, Shrubs, Roses, &c., in the country. It in part consists of standard Apple, Pear, Cherry, Plum, Peach, Apricot, Nectarine and Quince Trees. Also, Dwarf and Pyramid Pears and Apples.

SMALL FRUITS.—Native and Foreign Grapes, old and new sorts of Currants, finest Lancashire Gooseberries, Strawberries, Raspberries, &c. &c.

The ORNAMENTAL DEPARTMENT comprises a great variety of Deciduous and Evergreen Trees, Shrubs, Vines and Creepers, which includes upward of of 300 varieties of the Rose.

BEDDING PLANTS.—150 varieties of Dahlias, a large collection of Verbenas, Petunias, Helictropes, &c. &c.

Priced Catalogues of the above will be mailed to all applicants enclosing a postage stamp for each Catalogue wanted, viz:

No. 1.—Descriptive Catalogue of Fruits, Ornamental Trees, Shrubs, &c.

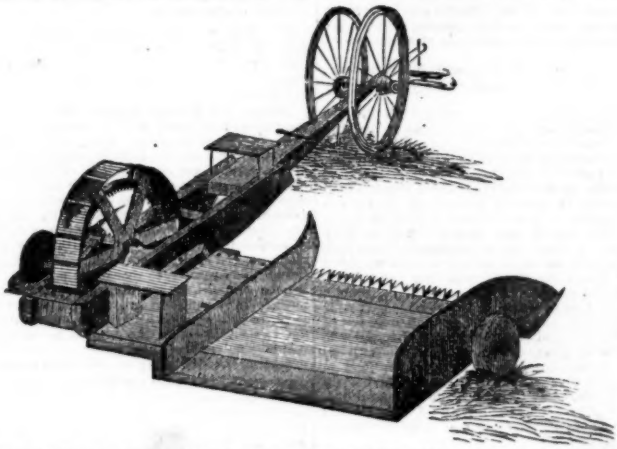
No. 2.—Descriptive Catalogue of Green House and Bedding Plants of every description, including every thing new which may be introduced up to its season, will be published in March each year.

No. 3.—Wholesale Catalogue, published in September.

February 1, 1854.—tf

HUSSEY'S COMBINED REAPER AND MOWER,

MANUFACTURED BY T. R. HUSSEY & CO., AUBURN, CAYUGA COUNTY, N. Y.

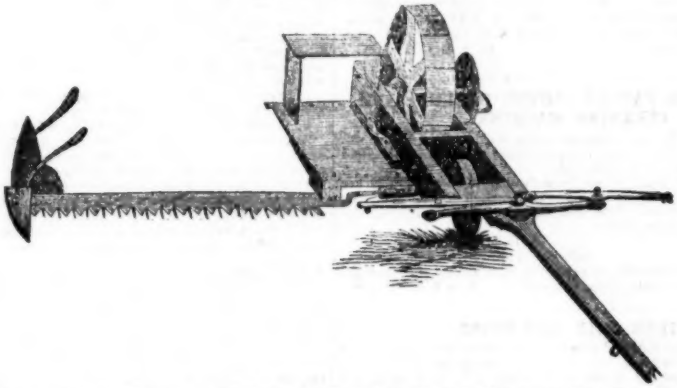


THE perfect satisfaction which the above-named Machine gave to every farmer who used one, both in Reaping and Mowing, last season, gives us renewed confidence in warranting them to be the best Machine for the purpose intended ever manufactured; and in consideration of the unequaled success attending the operation and sale of them last season, we have gone more extensively into the manufacture of them, and have a lot now on hand,

READY TO SUPPLY ORDERS.

All Machines sold by us are warranted to be built of the best materials, and warranted to work well, both for

REAPING AND MOWING.



We could append any number of certificates as proofs of the well working of the Machine, but we flatter ourselves that the reputation of them is so well established among the farming community that they are not required.

☞ All communications sent to us on the subject of Mowers and Reapers, will receive prompt attention.

July 1, 1854.—tf T. R. HUSSEY & CO., Auburn, N. Y.

PERUVIAN GUANO.

WE are receiving our stock of Peruvian Guano, for summer and fall supply, per ships Northern Crown, Leavanter and Antelope, and are now prepared to supply all that may be in want of this valuable manure, and request early application. Price, $55 per ton of 2000 lbs. When taken in lots of five tons and upwards, a discount will be made.

There are various substances now offering in this market for Peruvian Guano. To avoid imposition, be particular to observe that the genuine Guano has branded upon each bag—

No. 1.

PERUVIAN GUANO.

Imported by

F. BARREDA BROTHERS.

LONGETT & GRIFFING,

State Agricultural Warehouse, 25 Cliff street, New York.

July 1, 1854.—tf

NEW BOOKS BY MAIL.

D. M. DEWEY, ROCHESTER, N. Y.,

WILL send any Book, Pamphlet, Magazine, Cheap Publication, Map, &c. &c., you see advertised or noticed anywhere, by mail, free of postage, on the receipt of the price of the book, to my address. All the New Books of the day on sale at my counter at Publishers' prices. Address D. M. DEWEY,

Bookseller, Arcade Hall, Rochester, N. Y.

N. B.—AGENTS WANTED, to sell New Publications, Maps, &c. &c., to whom a liberal commission will be allowed. Address as above. July 1, 1854.—2t

FERTILIZERS.

SUPERPHOSPHATE OF LIME, No. 1, of the best manufacture.
Peruvian Guano, best No. 1.
Poudrette, Plaster of Paris, &c. R. L. ALLEN,
March 1, 1854.—3t 189 and 191 Water street, New York.

McCORMICK'S REAPING AND MOWING MACHINE

I AM manufacturing 1500 Reaping and Mowing Machines for 1854, and farmers who want Machines are requested to send in their orders early. Last year I had not a supply, although I had 1500 in the market.

I offer my large experience (both in this country and in Europe) for the last fifteen years and more in this business, as the safest guarantee the farmer can have in the purchase of a Machine of this kind.

Deeming it useless to insert long advertisements in the newspapers, I shall be pleased to furnish applicants with my printed Circular.

Some important improvements have been made, while the Machine will be found as simple and efficient as a Machine of the kind can be. The important points that will present themselves in these Machines, will be Perfect Simplicity, Ease of Repairing, Durability, and Adaptation to the Wants of the Farmer as a Reaper and Mower. I shall continue the use of the Wrought-iron Beam, which will be found very important in mowing, because of the friction upon the ground, and liability to tear and wear a Wooden Beam, or any sheet-iron lining that may be used upon it. Another very important advantage which I claim for my Combined Machine is that it can be readily changed so as to cut any desired height of stubble as a Reaper or Mower by simply removing three bolts. This principle will be found wanting in other machines, though valuable upon rough ground, or for mowing barley or lodged oats, timothy seed, clover seed, &c., or where the ground may not be firm, and there be liability in the wheels to sink and the cutter to be brought in contact with the ground, sand, gravel, &c. With my Combined Machine the farmer has the advantage of a Reel in mowing, which admits of a slow walk to the horses, and is especially valuable when the wind interferes with the successful operation of the Machine. I have no fear of the result upon trial of the Machine with others; it has no superior as a Reaper or as a Mower.

The public are now especially cautioned to beware of SEYMOUR & MORGAN'S "NEW YORK REAPER." These men have been selling my Machines, *though under an injunction the second time since the re-issue of my Patent in April last*, in addition to a verdict of $20,000 for past infringements.

☞ Sundry other parties will soon be held to strict account for their infringements under this Patent, which makes them just as liable to be enjoined as Seymour & Morgan.

The Machine will be warranted equal to any other, both as a Reaper and as a Mower; and it will be forwarded to any part of New York or Canada, if ordered of THOS. J. PATERSON, at Rochester, N. Y., who wants Agents to sell it in some of the unoccupied wheat districts. C. H. McCORMICK.

May 1, 1854.—tf

MANSFIELD'S PATENT CLOVER HULLING AND CLEANING MACHINE

WAS awarded the first premium at the World's Fair, New York. Also, at the Ohio State Fairs for three successive years, and all other places wherever exhibited.

Warranted to Hull and Clean from twenty to forty bushels per day, and with a new improvement to be attached to the Machines made in 1854, they will Hull and Clean one-fourth more in the same time. Cash price, $100.

For sale by M. H. MANSFIELD,
Sole Manufacturer, Ashland, Ohio.

N. B.—Prosecutions will be promptly commenced for any infringements of the rights of the patentee. July 1, 1854.—2t*

CIDER MILL AND PRESS.

HICKOK'S Cider Mill and Press is considered now the best in use; simple in construction, portable (weighing but 275 lbs.), and not liable to get out of order. Warranted to work well, and give satisfaction. The first premium of the American Institute and Crystal Palace has been awarded to this machine. Drawing and description will be sent by addressing the agents for the sale, in New York. Price of mill and press, $40.

LONGETT & GRIFFING,
May, 1854.—4t 25 Cliff street, near Fulton, New York.

THE GREAT RED DRAGON,
OR THE MASTER KEY TO POPERY,

By ANTHONY GAVIN,
Catholic Priest, of Saragossa, Spain.

BOOK AGENTS WANTED,

TO sell the work which is now ready, and surpasses in detail and interest any other work on the subject of Popery ever issued. The terrible revelations which it contains will startle every Protestant with horror, as coming from one who was a participator in the bloody deeds, and who has had the best opportunity ever possessed by any man to unveil the mysteries of the Great Babylon of Popery. Finely illustrated. Address, immediately,

SAMUEL JONES, Publisher,
August 1, 1854.—3t 86 Washington street, Boston, Mass.

ROCHESTER AGRICULTURAL MACHINERY.

THE undersigned, who has been many years engaged in the extensive manufacture of various kinds of Agricultural Machinery, particularly Horse Powers, Threshing Machines, Separators, &c., has now added to his business the manufacture of several valuable implements—

1st. ATKINS' AUTOMATON OR SELF-RAKING REAPER AND MOWER; an implement well known at the West, which has been advertised for the last three months by Mr. WRIGHT of Chicago, in the GENESEE FARMER, to which the reader is referred for particulars.

Atkins' Self-Raking Reaper.—This machine was in successful operation on the farm of B. B. KIRTLAND, Greenbush, on Wednesday and Thursday of last week, and elicited the approbation of every one who saw it. It is impossible to convey in words any idea of the mechanical construction of the raking attachment. The cutting apparatus does not differ materially from that of other reapers, but at regular intervals an arm, to which a rake is attached, extends itself to the farther part of the apron, slowly draws itself the length of the apron, pressing the grain against a plate, where it holds it till it swings around a quarter of a circle, clear of the machine, and coolly deposits its neat sheaf on the ground, when it immediately returns to repeat the process. The machine is not of heavier draught, apparently, than other machines—and it does its cutting fully equal to any we have seen work. While it has no superior as a practical thing, it is a curiosity worth quite a pilgrimage to see. It comes the nearest to being instinct with life and manifesting signs of intelligence, of any piece of mechanism, not excepting the steam engine.—*Country Gentleman.*

2d. BURRALL'S GRAIN REAPER.—At the great trial of Reapers in the harvest field, at Geneva, N. Y., in July last, the Committee appointed by the State Agricultural Society, took into consideration its simplicity, durability, the manner in which it performed its work, and the ease with which it can be managed, when, in competition with eleven other Reapers, they unanimously awarded it the *first prize of $50 and diploma.* The Committee in their report remark that "T. D. BURRALL'S Machine performed its work in the most admirable manner; the gavels were well laid; the workmanship and materials were excellent; the circular apron for side delivery, the balance wheel and an arrangement to elevate the exterior edge of the apron, are valuable features, &c., &c.

This Reaper has been thoroughly tested practically, during the last two years, in Western New York. All the Reapers sent out have given complete satisfaction. We would say to those who are not convinced of the superiority of this Reaper over all others, that we have still more facts which we could not exhibit for want of space, and which we would be pleased to exhibit to all such as may call upon us. We would observe that experience with this Reaper will bear us out in saying that

1. It cuts grain of all kinds, in all conditions, without clogging, and may be worked by oxen or horses.

2. It cuts at any height required, by a few moments' change.

3. It discharges the grain in the rear, if preferred, like HUSSEY'S; or at the side, like M'CORMICK'S; leaving room for the team and machine to pass again without treading on the grain. This change is made by means of an extra apron, (attached in a moment,) from which the grain is laid in a better condition for drying and binding, and with much less labor to the raker than has ever been done before.

4. It has a Balance Wheel, which corrects the irregularity of the crank motion, and gives a quiet and uniform movement to the machine.

This Reaper has been so thoroughly tested in Western New York, where wheat grows as stout or stouter than in any other part of the country, that there is now no doubt but that it will give entire satisfaction to all who may purchase. There is, however, no risk in buying. The purchaser can rest assured that when his harvest comes, he has something that will perform. It is not like an untried thing, or a thing that has not been tried in the Genesee country, where wheat grows large and stout, and may fail, and in failing, make the purchaser enough expense in money and trouble to considerably more than have purchased something reliable at first. Experiments cost too much money, time and trouble, to be carried on in the hurry of harvest time, and by those who have crops to secure. We say, therefore, if you buy a Reaper, buy one, the reliability of which has been demonstrated by thorough, practical experiment, and if possible, in your own neighborhood, and on soils producing similarly to your own.

3d. DANFORTH'S REAPER AND MOWER COMBINED, which took the first premium at the Agricultural Fair in Chicago, 1852.

4th. KINMAN'S PATENT FLOUR PACKER.

5th. CHILDS' GRAIN SEPARATOR.

6th. WOODBURY'S MOUNTED HORSE POWER AND GRAIN SEPARATOR.

7th. HALL'S SIX FEET DOUBLE PINION HORSE POWER, which is unequaled for strength, easy working and durability.

8th. IRON OR PLANET HORSE POWER.

9th. PITT'S PATENT THRASHER AND SEPARATOR, which has been in use for 17 years.

All of which will be sold at the lowest manufacturers' terms by
June 1, 1854.—tf JOSEPH HALL, Rochester, N. Y.

GREAT ARTISTS' UNION ENTERPRISE!!
250,000
GIFTS FOR THE PEOPLE.

STATUARY,	$40,000
OIL PAINTINGS,	10,000
ENGRAVINGS, colored in oil,	45,000
STEEL PLATE ENGRAVINGS,	41,000
CASH LOANS, for 100 years each,	30,000
REAL ESTATE,	84,000

Total, $250,000.

The AMERICAN ARTISTS' UNION would respectfully announce to the citizens of the United States and the Canadas, that for the purpose of the advancement and extension of the Fine Arts, and with a view of enabling every family throughout the length and breadth of the land to become possessed of a gallery of pictures, many of them the work of master minds, and finally, for the purpose of giving a world-wide circulation to

DARLEY'S GREAT PICTURE OF WYOMING,

they have determined to distribute among the purchasers of this work, **Price $1.00,** 250,000 GIFTS, of THE VALUE of $250,000.

LIST OF GIFTS.

Marble Statuary, $40,000.

100	elegant busts of Washington, at $100,	$10,000
100	" " Clay, at $100,	10,000
100	" " Webster, at $100,	10,000
100	" " Calhoun, at $100,	10,000

Oil Paintings and Colored Steel Engravings.

50	elegant Oil Paintings, in splendid gilt frames, size 3 x 4 feet, each $100,	$5,000
100	elegant Oil Paintings, 2 x 3 feet, each $50,	5,000
500	steel plate Engravings, brilliantly colored in oil, rich gilt frames, 24 x 30 inches, each $10,	5,000
10,000	elegant steel plate Engravings, colored in oil, of the WASHINGTON MONUMENT, 20 by 26, each $4,	40,000
237,000	steel plate Engravings, from 100 different plates, now in possession of and owned by the Artists' Union, of the market value of from 50 cts. to $1 each,	41,000

Real Estate, $84,000.

1	elegant Dwelling in 32d street, New York city,	$12,000
22	Building Lots in 100 and 101st streets, New York city, each 25 x 100 feet deep, each $1000,	22,000
100	Villa Sites, containing each 10,000 square feet, in the suburbs of New York city, and commanding a magnificent view of the Hudson River and Long Island Sound, each $500,	50,000

Loans of Cash, $30,000.

20	loans of cash, for 100 years, without interest or security,	$250 each,	$5,000
50	do.	100 "	5,000
100	do.	50 "	5,000
250	do.	20 "	5,000
2000	do.	5 "	10,000

The holder of each ticket is entitled, first, to a steel plate Engraving (size 25 x 30 inches) of the

GREAT AMERICAN HISTORICAL WORK OF ART, WYOMING,

a copy of which may be seen at the office of this paper; and second, to **One** of the **250,000 Gifts,** which will be distributed on the completion of the sale of the tickets.

The purchaser of FIVE TICKETS, on the receipt of his order, will be forwarded, carefully packed, either one copy of the "Wyoming," plain, and one copy of each of four other engravings, equal to it in value, and is entitled to five gifts. The purchaser of more than five tickets can have his choice out of 100 different subjects, from steel plates owned by the Artists' Union, each picture being in value equivalent to the "Wyoming," and is entitled to one gift for each ticket he holds. A list of the subjects can be seen at the office of this paper.

AGENTS.—Persons desiring to become Agents for the sale of tickets, by forwarding (post paid) $1, shall be sent a Gift Ticket, a copy of Wyoming, and a prospectus containing all necessary information.

It is confidently believed that the tickets will be disposed of by the first of July, when the distribution of Gifts will be entrusted to a COMMITTEE APPOINTED BY THE TICKET-HOLDERS.

The steel plates from which the engravings are printed can be seen at the office of the Artists' Union, and cost $100,000. Specimens of the Oil Paintings and Engravings are also on view at the rooms.

REFERENCES IN REGARD TO THE PROPERTY.

W. C. BARRETT, Esq., Counsellor at Law, 10 Wall street, N. Y.
F. J. VISSCHER & Co., Real Estate Brokers, 80 Nassau st., N. Y.

ALL ORDERS FOR TICKETS must be addressed, post paid, with the money enclosed, to J. W. HOLBROOKE, Sec.,
June 1, 1854.—3t 505 Broadway, New York.

AYER'S PILLS.

FOR ALL THE PURPOSES OF A

FAMILY PHYSIC.

THERE has long existed a public demand for an effective purgative pill which could be relied on as sure and perfectly safe in its operation. This has been prepared to meet that demand, and an extensive trial of its virtues has conclusively shown with what success it accomplishes the purpose designed. It is easy to make a physical *Pill,* but not easy to make the best of all *Pills*—one which should have none of the objections, but all the advantages, of every other. This has been attempted here, and with what success we would respectfully submit to the public decision. It has been unfortunate for the patient hitherto that almost every purgative medicine is acrimonious and irritating to the bowels. This is not. Many of them produce so much griping pain and revulsion in the system as to more than counterbalance the good to be derived from them. These *Pills* produce no irritation or pain, unless it arise from a previously existing obstruction or derangement in the bowels. Being purely vegetable, no harm can arise from their use in any quantity; but it is better that any medicine should be taken judiciously. Minute directions for their use in the several diseases to which they are applicable are given on the box. Among the complaints which have been speedily cured by them, we may mention Liver Complaint, in its various forms of Jaundice, Indigestion, Languor and Loss of Appetite, Listlessness, Irritability, Bilious Headache, Bilious Fever, Fever and Ague, Pain in the Side and Loins, for, in truth, all these are but the consequence of diseased action in the liver. As an aperient, they afford prompt and sure relief in Costiveness, Piles, Colic, Dysentery, Humors, Scrofula and Scurvy, Colds, with soreness of the body, Ulcers and impurity of the blood; in short, any and every case where a purgative is required.

They have also produced some singularly successful cures in Rheumatism, Gout, Dropsy, Gravel, Erysipelas, Palpitation of the Heart, Pains in the Back, Stomach and Side. They should be freely taken in the spring of the year, to purify the blood and prepare the system for the change of seasons. An occasional dose stimulates the stomach and bowels into healthy action, and restores the appetite and vigor. They purify the blood, and, by their stimulant action on the circulatory system, renovate the strength of the body, and restore the wasted or diseased energies of the whole organism. Hence an occasional dose is advantageous even though no serious derangement exists; but unnecessary dosing should never be carried too far, as every purgative medicine reduces the strength, when taken to excess. The thousand cases in which a physic is required cannot be enumerated here, but they suggest themselves to the reason of every body; and it is confidently believed this pill will answer a better purpose than any thing which has hitherto been available to mankind. When their virtues are once known the public will no longer doubt what remedy to employ when in need of a cathartic medicine.

Being sugar wrapped, they are pleasant to take; and being purely vegetable, no harm can arise from their use in any quantity.

For minute directions, see the wrapper on the box.

PREPARED BY JAMES C. AYER, PRACTICAL AND ANALYTICAL CHEMIST, LOWELL, MASS.

☞ Price 25 cents per Box. Five Boxes for $1.

☞ Sold by LANE & PANE, and W. PITKIN & SON, Rochester; DEMAREST & HOLMAN, Buffalo; and by all Druggists every where. July 1, 1854.—2t

AGENTS WANTED.
CHANCES FOR MAKING MONEY!

THE publishers of a large list of highly entertaining, useful and popular Books, offer great inducements to 500 energetic and thorough-going business young men, to engage in the sale of these publications, in which any young man of good business habits may make FIVE TIMES the amount, over and above all expenses, of the average wages of Common School Teachers.

The MOST LIBERAL discounts are made to Agents from the list of prices.

The books command ready sales wherever they are introduced.

None need apply unless they wish to devote their whole attention to the business, and who cannot command a CASH CAPITAL of from $25 to $100, or give undoubted security for the amount of goods entrusted to them.

Full particulars in regard to terms, &c., will be furnished by calling on, or addressing, post paid,

WANZER, BEARDSLEY & CO.,
24 Buffalo Street, Rochester, N. Y.,
Or, ALDEN, BEARDSLEY & CO.,
June 1, 1854.—4t Auburn, N. Y., Publishers.

Contents of this Number.

Calendar Hints for August, ... 233
The Study of Soils, ... 234
Hydraulic Ram, ... 235
Mixture and Sowing of Grass Seeds, ... 235
Farming in Middlesex County, Mass., ... 237
Agriculture and other Improvements in Chili, ... 238
Farming on the Sandwich Islands, ... 239
The Guano Trade, ... 240
Carriage-house and Stable, ... 241
American Farmers in Palestine, ... 242
Nebraska and Kansas, ... 242
Foul-in-the-foot, ... 243
Corn Bread, ... 243
Pettit's Fisheries Guano, ... 244
The Profit of Fattening Swine, ... 245
Covered and Uncovered Manures, ... 245
Preparing Land for Wheat, ... 246
Gain of Weight in Cattle Feeding, ... 247
Designs for Churches, ... 249
Spaying of Cows, ... 249
Grasshopper Food, ... 250
Stowell Corn, ... 250
Horrors of the Guano Trade, ... 250
Improving Wheat, ... 250
Cattle-feeders in Ohio, ... 250

HORTICULTURAL DEPARTMENT.

Hort. Exhibitions, &c., in Cayuga and Tompkins Counties, ... 251
Strawberries, ... 251
Clematis Azurea, or Large Blue-flowered Clematis, ... 252
Meeting of the Hort. Society of the Valley of the Genesee, .. 253
Descriptions of New Pears cultivated by M. de Liron d'Airnoles, at la Civeliere, Nantes, ... 253
The Apple Orchards, ... 254
The Ranunculus, ... 255
Kilmarnock Weeping Willow, ... 256
Second Crop of Strawberries, ... 256

LADIES' DEPARTMENT.

Modes of Preparing the Peach, ... 257
Cheese making, ... 257
The Home of Taste, ... 257
Epigram, ... 257

EDITOR'S TABLE.

The Wheat Fly, or "Weevil," 258
Cattle from Texas, ... 258
The Practical Mechanic's Journal, ... 258
Recipe for making Currant Wine, ... 259
Sale of Horses in New York, ... 259
Sheep from Ohio in Illinois 259
The Cashmere Goat, ... 259
A New Useful Metal, ... 259
English Reviews and Blackwood's Magazine, ... 259
Sheep-raising in Illinois, ... 259
State Fairs for 1854, ... 260
Inquiries and Answers, ... 260

ILLUSTRATIONS.

Virgio, ... 233
Design for Carriage-house and Stable, ... 241
Church in the Romanesque Style, ... 248
Clematis Azurea, ... 252
Cecidomyia tritici (Wheat Fly), ... 249

HOME PROTECTION.

TEMPEST INSURANCE COMPANY.

CAPITAL, $250,000.

Organized December 24, 1852—Chartered March 1, 1853.

HOMES ONLY INSURED BY THIS COMPANY.

No one Risk taken for more than $3000.

HOME OFFICE, MERIDIAN, N. Y.

Many distinguished persons have insured their homes to the amount of $3000 each in this Company, among whom are Ex-President VAN BUREN, Kinderhook; Ex-Governor SEWARD, Auburn; DANIEL S. DICKINSON, Ex U. S. Senator, Binghampton.

To whom it may concern: AUBURN, May 16th, 1853.

We are personally acquainted with many of the Officers and Directors of the Tempest Insurance Company, located at Meridian, Cayuga county, N. Y. In our opinion they are among the most wealthy and substantial class of farmers in this county.

J. N. STARIN,
ELMORE P. ROSS,
THOMAS Y. HOWE, Jr.

The above gentlemen will be recognized as the Cashier of Cayuga County Bank, Auburn; Postmaster, Auburn; and Ex-Member of Congress, Auburn, Cayuga county, N. Y.

February 1, 1854—1y

THE GENESEE FARMER,

A MONTHLY JOURNAL OF

AGRICULTURE & HORTICULTURE.

VOLUME XV., SECOND SEIRES. 1854.

EACH NUMBER CONTAINS 32 ROYAL OCTAVO PAGES, IN DOUBLE COLUMNS, AND TWELVE NUMBERS FORM A VOLUME OF 384 PAGES IN A YEAR.

Terms.

Single Copy, ... $0.50
Five Copies, ... 2.00
Eight Copies, ... 3.00

And at the same rate for any larger number.

☞ Remittances properly mailed, and postage paid, at the risk of the Publisher.

☞ Postmasters are respectfully requested to act as Agents.

DANIEL LEE,
Publisher and Proprietor, Rochester, N. Y.

CHEAPEST AND BEST.

LEE, MANN & CO., ROCHESTER, N. Y.,

Are the Publishers of one of the Largest and Cheapest Newspapers in the country.

THE WEEKLY AMERICAN

Is a paper of large size, containing 36 columns. It contains the Latest News up to the day of publication, Important Public Intelligence, a well-selected Miscellany and General Reading page, Grain, Cattle, Wool and Iron Markets to the latest dates from Boston, New York, Albany, Buffalo, Cincinnati, Troy, Baltimore and Rochester.

This paper is published every Thursday, for ONE DOLLAR A YEAR, INVARIABLY IN ADVANCE. It is the best and cheapest paper for farmers and others in this and the Western States.

They also publish

THE TRI-WEEKLY AMERICAN

Price $4 per annum, and

THE DAILY AMERICAN,

Price $6 per annum, to mail subscribers.

LEE, MANN & CO. have in operation SIX STEAM AND THREE HAND PRESSES, by means of which they can give all orders for BOOK OR JOB WORK IMMEDIATE DISPATCH, while their large assortment of TYPES, BORDERS and ORNAMENTS, enables them to execute orders in the BEST STYLE. Railroad Companies, Banks, Insurance Offices, Manufacturing Establishments, Forwarders, Shippers, Merchants and Lawyers, can have their work done with PUNCTUALITY and ELEGANCE, and their Books ruled and bound in any desired patterns and in the best manner.

Address LEE, MANN & CO.,
Rochester, N. Y.

Office on Buffalo street, opposite the Arcade.
May 1, 1854.—tf

PREMIUM STRAWBERRY PLANTS.

WM. R. PRINCE & CO., Linnæan Garden and Nurseries, Flushing, N. Y., will supply assortments of their unrivaled collection of Strawberries, at the reduced prices stated in their Catalogue for 1854-5, the most of which are described in the April, May and November numbers of the Horticulturist of the last year. The months of July, August and September are the best for planting them, to insure a good crop the ensuing spring.

N. B.—Tulips, Hyacinths, and other hardy Bulbs, can be supplied from July to October. August 1, 1854.—1t

STRAWBERRY PLANTS.

THE subscriber can furnish any quantity of "Early Scarlet," "Hovey's Seedling," and "Burr's New Pine" Strawberry Vines, for this fall's planting, and will deliver them well packed at the Express Office in Rochester.

Price for two first named kinds, $4 per thousand; and for Burr's New Pine, $6 per thousand.

☞ Orders may be sent to me at Penfield, Monroe Co., N. Y.
August 1, 1854.—1t GEO. D. SOUTHWORTH.

MELENDY'S PATENT FRUIT-PICKER.

PATENTED JUNE 27, 1854,

IS the only implement yet invented with which Apples, Pears, Peaches, Cherries, &c., can be picked faster than by hand-picking, and without the least injury to the fruit. Responsible Agents for the sale of the implements wanted in all parts of the country. Descriptive circulars, with cuts, mailed to all post-paid applications. Manufactured and sold at wholesale and retail by J. MELENDY, PATENTEE, *and sole proprietor*, Southbridge, Mass.

August 1, 1854.—2t